

CALIFORNIA HIGH-SPEED TRAIN

Engineering Drawings

RECORD SET 30% DESIGN SUBMISSION

Fresno to Bakersfield

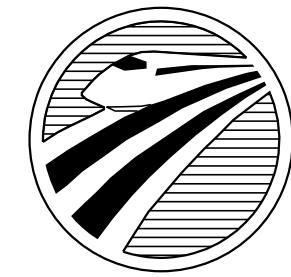
Sierra Subdivision
Procurement Package 1C

June 2012



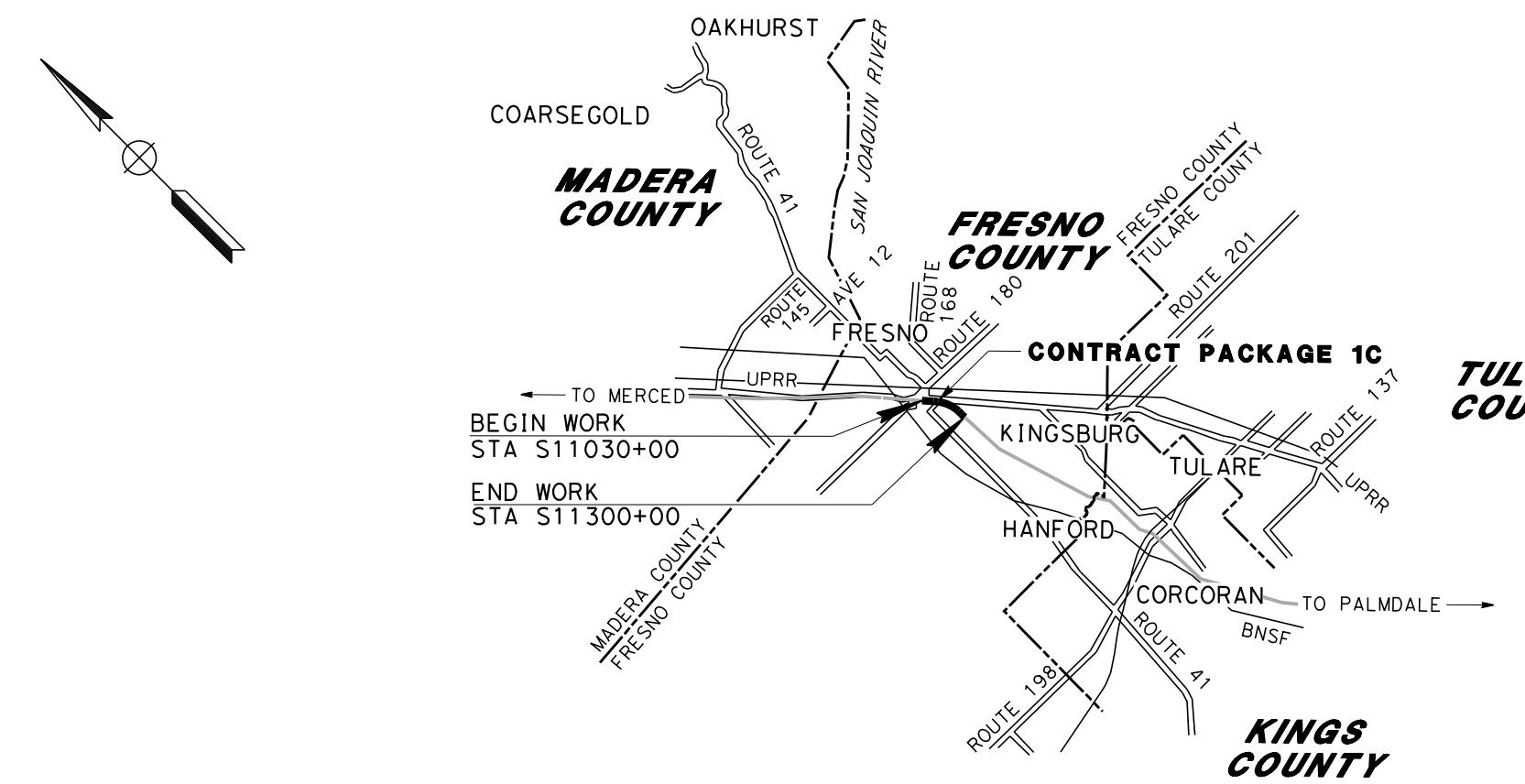
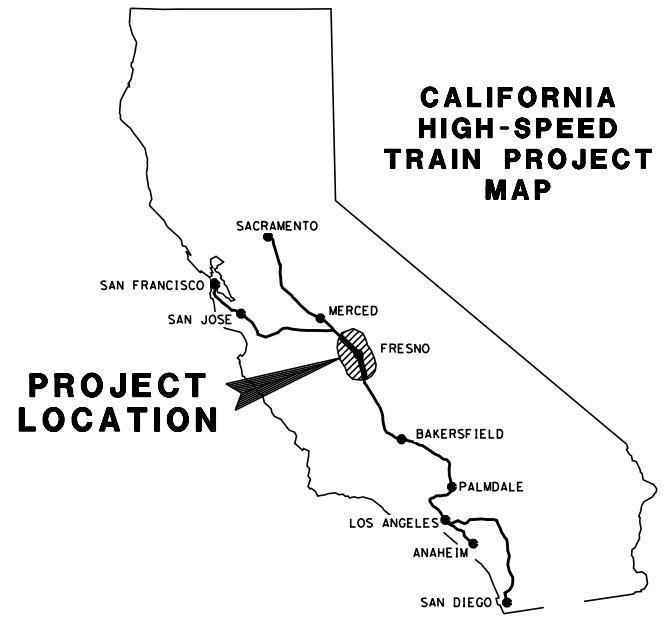
CALIFORNIA
High-Speed Rail Authority

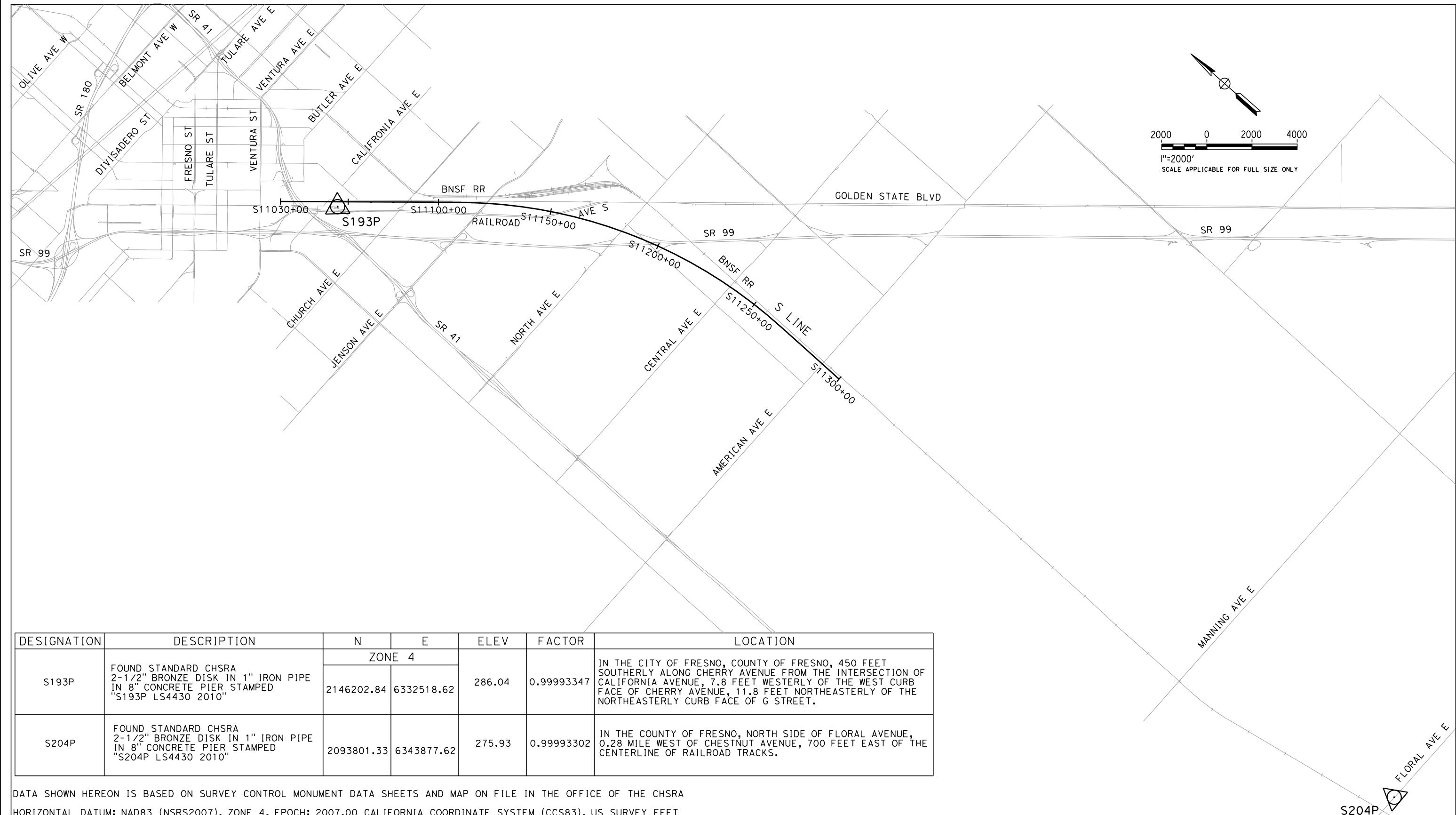




CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

PROPOSED PRELIMINARY DESIGN
CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
CONTRACT PACKAGE 1C





DATA SHOWN HEREON IS BASED ON SURVEY CONTROL MONUMENT DATA SHEETS AND MAP ON FILE IN THE OFFICE OF THE CHSRA

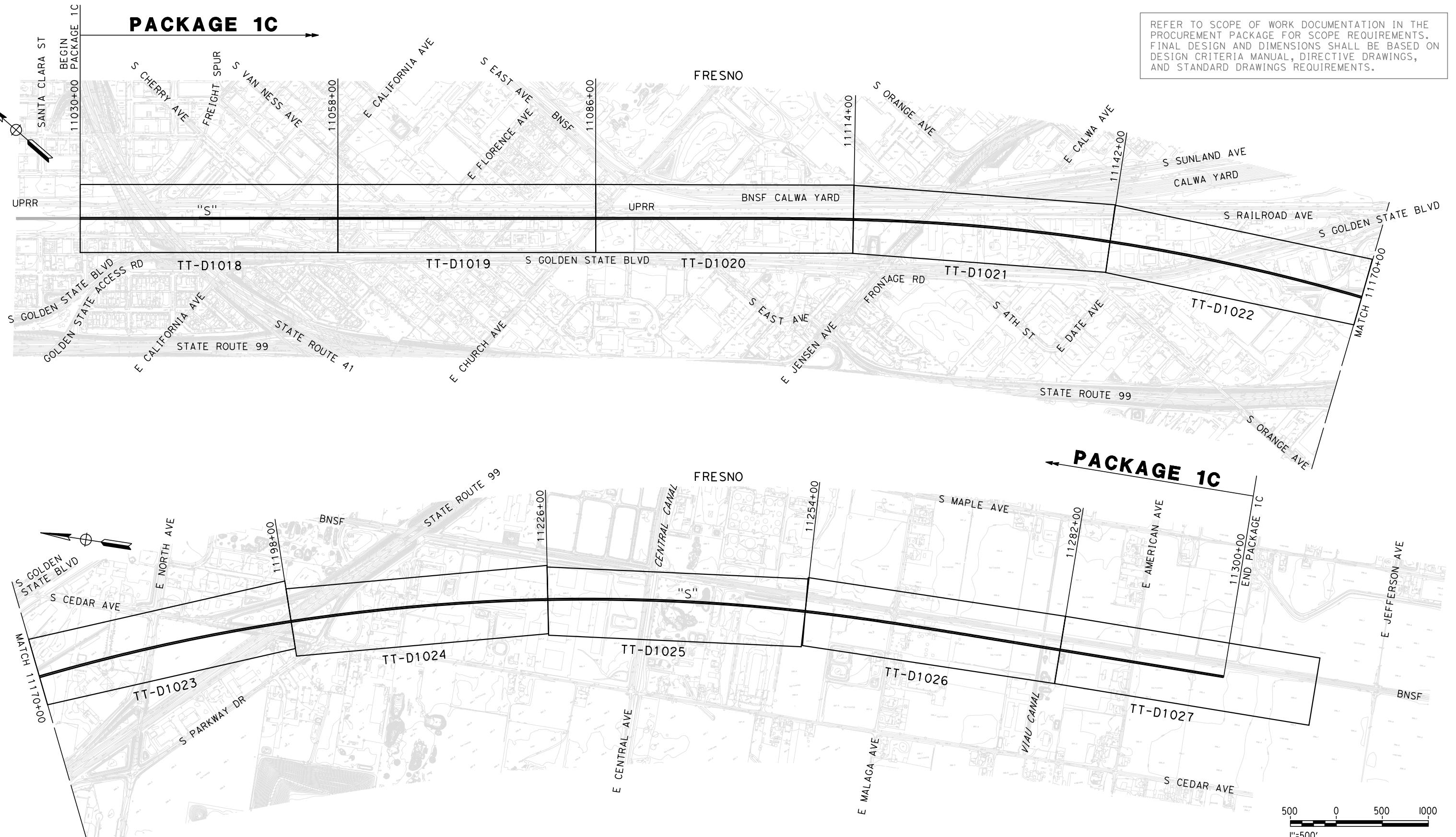
HORIZONTAL DATUM: NAD83 (NSRS2007), ZONE 4, EPOCH: 2007.00 CALIFORNIA COORDINATE SYSTEM (CCS83), US SURVEY FEET

VERTICAL DATUM: NAVD88, US SURVEY FEET

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY B. STOCKINGER	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
					DRAWN BY S. AVILES	NOT FOR CONSTRUCTION			PACKAGE 1C GENERAL SURVEY CONTROL DATA SHEET 1 OF 1	DRAWING NO. VS-C0006
					CHECKED BY J. LABANOWSKI					SCALE AS SHOWN
REV	DATE	BY	CHK	APP	IN CHARGE G. HORTON					SHEET NO.
					DATE 6/6/12					
					DESCRIPTION					

PACKAGE 1C



ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION
					06/06/12

DESIGNED BY
K. SEYMOUR
DRAWN BY
P. TONKIN
CHECKED BY
D. HUNT
IN CHARGE
R. COFFIN
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
NOT FOR
CONSTRUCTION



URS | HMM | ARUP
CALIFORNIA HIGH-SPEED TRAIN



CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

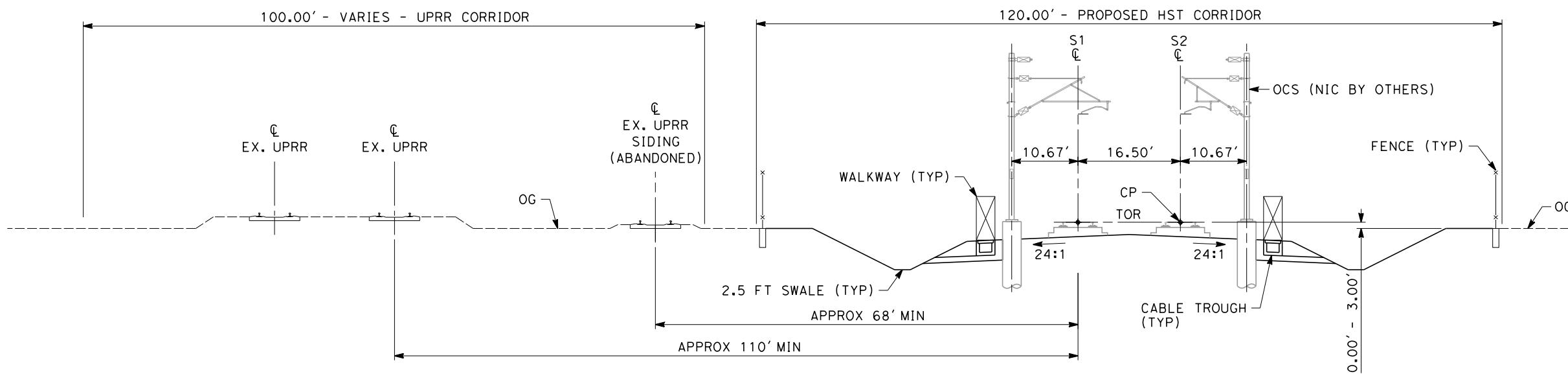
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
TRACK GUIDEWAY
KEY MAP

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO.

TT-B0010
AS SHOWN
06/06/12

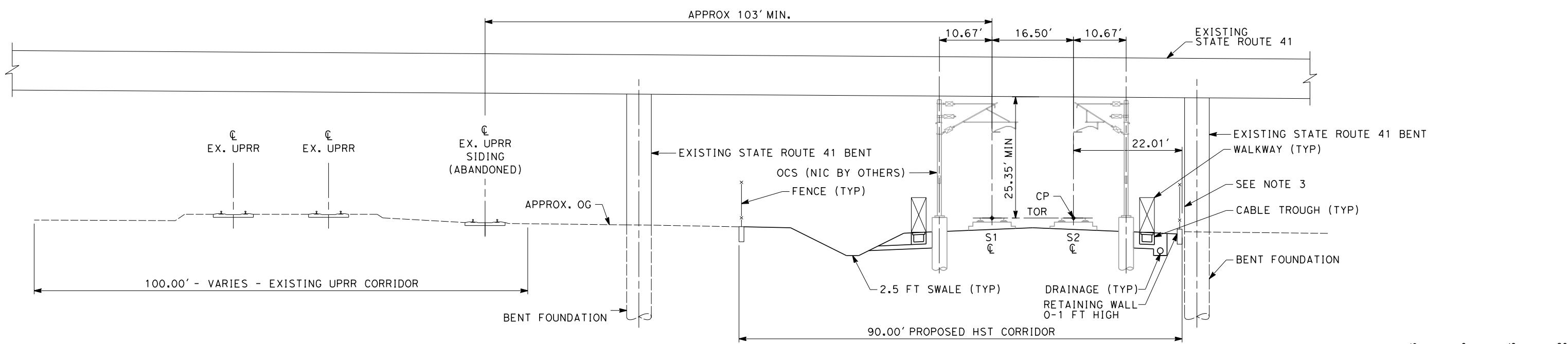
NOTES:

1. TRACKFORM SHOWN FOR INFORMATION ONLY (NIC BY OTHERS).
2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.
3. HST DERAILMENT CONTAINMENT OR PIER PROTECTION MAY BE REQUIRED. TO BE DETERMINED THROUGH A SITE SPECIFIC HAZARD ANALYSIS.



SECTION 22

"S" 11030+00 THROUGH 11037+00
 "S" 11039+50 THROUGH 11069+40
 TWIN TRACK - AT GRADE



SECTION 23

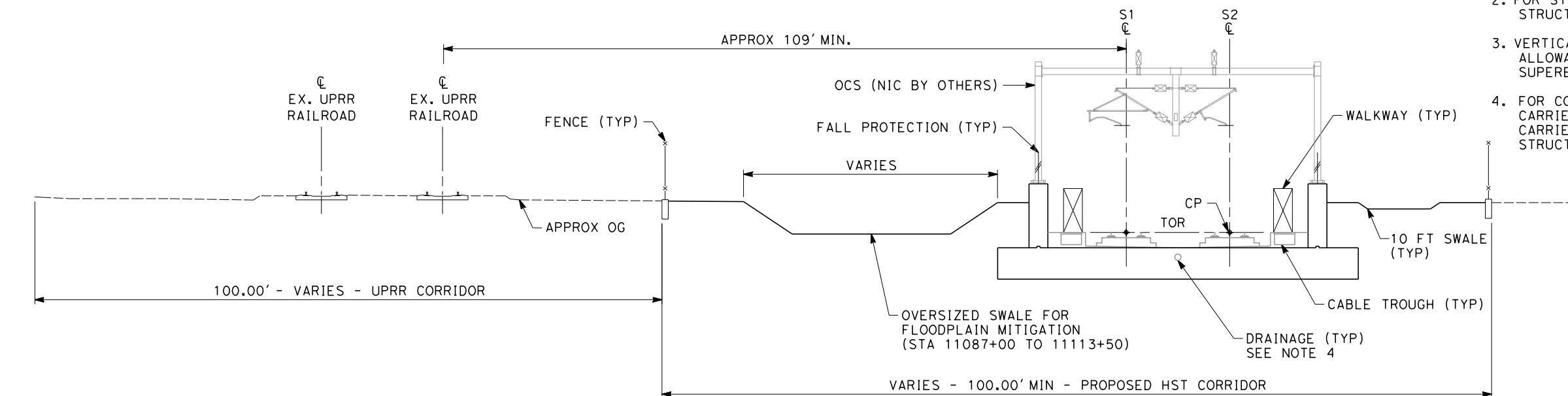
"S" 11037+00 THROUGH 11039+50
 TWIN TRACK - AT GRADE UNDER STATE ROUTE 41

ADDENDUM 3 - RFP HSR 11-16

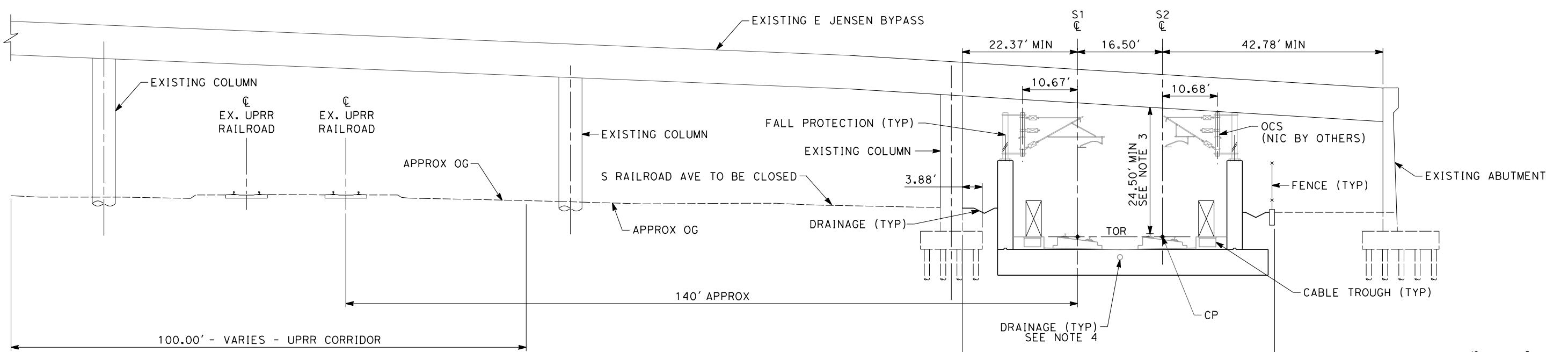
DESIGNED BY K. SEYMOUR	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.		
DRAWN BY P. TONKIN	NOT FOR CONSTRUCTION			DRAWING NO. TT-D3012		
CHECKED BY D. HUNT				SCALE AS SHOWN		
IN CHARGE R. COFFIN				SHEET NO.		
DATE 06/06/12						
REV	DATE	BY	CHK	APP	DESCRIPTION	CONTRACT NO.

NOTES:

1. TRACKFORM SHOWN FOR INFORMATION ONLY (NIC BY OTHERS).
2. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL TYPICAL SECTIONS.
3. VERTICAL CLEARANCE INCLUDES ALLOWANCE FOR UP TO 7 INCHES OF SUPERELEVATION.
4. FOR CONNECTION TO LONGITUDINAL CARRIER DRAIN AND LONGITUDINAL CARRIER DRAIN LOCATION SEE STRUCTURAL TYPICAL SECTIONS.

**SECTION 24**

"S" 11069+40 THROUGH 11120+25
 "S" 11122+40 THROUGH 11137+00
 TWIN TRACK - IN TRENCH

**SECTION 25**

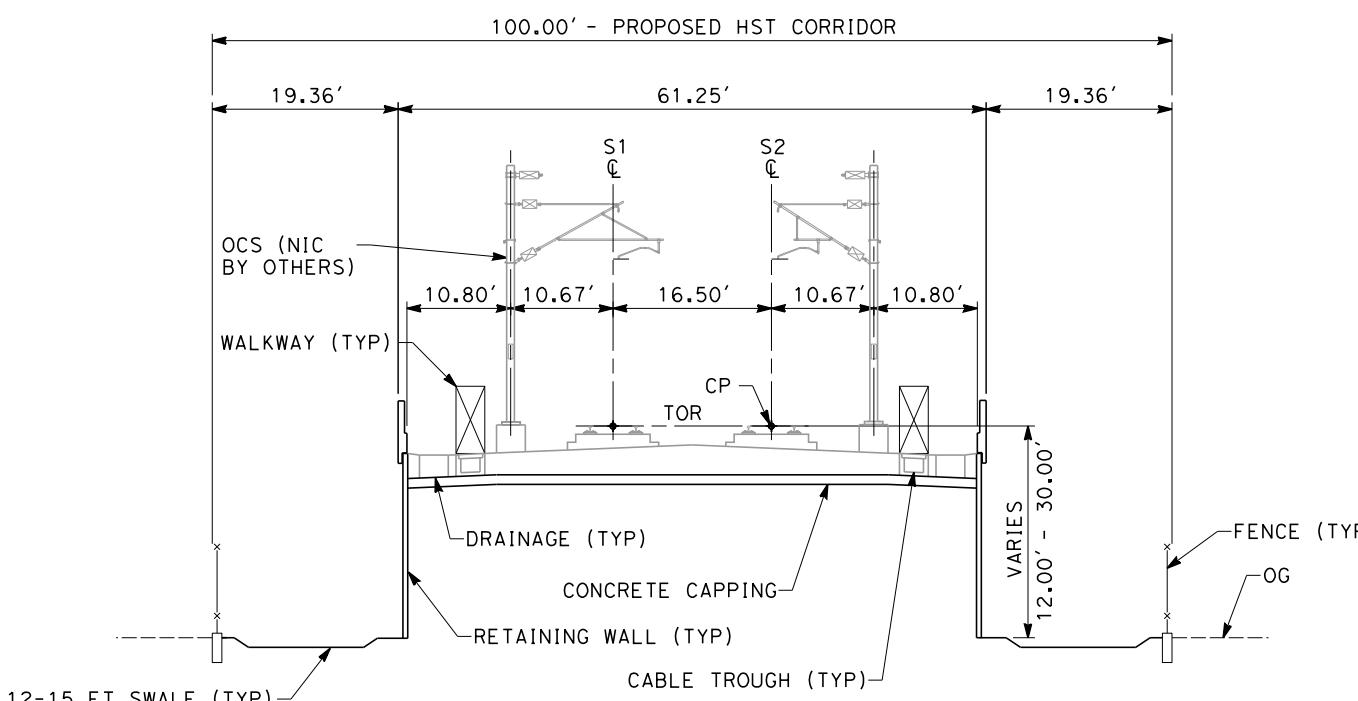
"S" 11120+25 THROUGH 11122+40
 TWIN TRACK - IN TRENCH UNDER E JENSEN AVE

10 0 10 20
I'=10'
SCALE APPLICABLE FOR FULL SIZE ONLY

ADDENDUM 3 - RFP HSR 11-16

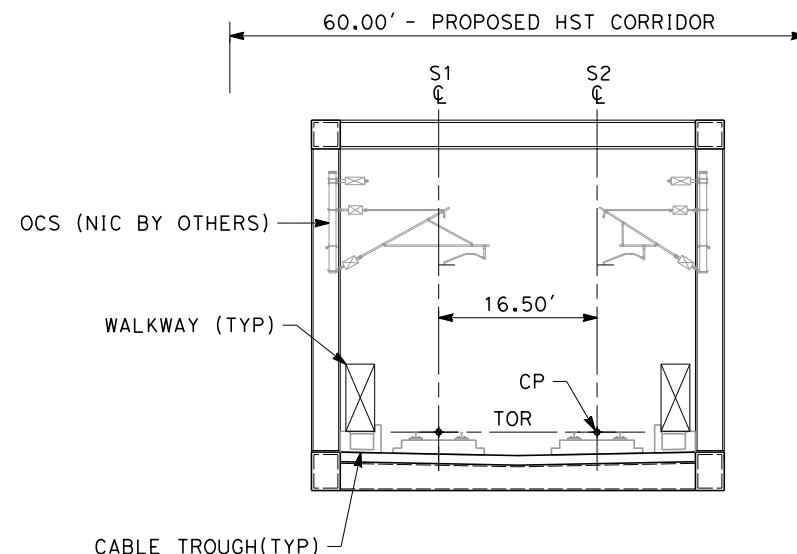
DESIGNED BY K. SEYMOUR	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.
DRAWN BY P. TONKIN	NOT FOR CONSTRUCTION	CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	DRAWING NO. TT-D3013
CHECKED BY D. HUNT			SIERRA SUBDIVISION	SCALE AS SHOWN
IN CHARGE R. COFFIN			PACKAGE 1C TRACK GUIDEWAY TYPICAL SECTIONS	SHEET NO.
DATE 06/06/12				
REV	DATE	BY	CHK	APP
DESCRIPTION				

- NOTES:**
1. TRACKFORM SHOWN FOR INFORMATION ONLY (NIC BY OTHERS).
 2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.
 3. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL TYPICAL SECTIONS.



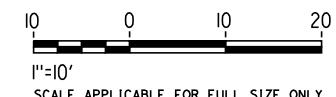
SECTION 26

"S" 11144+50 THROUGH 11152+30
 "S" 11216+00 THROUGH 11230+00
 TWIN TRACK - RETAINED EMBANKMENT WITH OPEN DRAINAGE



SECTION 27

"S" 11152+30 THROUGH 11155+40
 "S" 11191+50 THROUGH 11200+05
 TWIN TRACK - AERIAL STEEL TRUSS

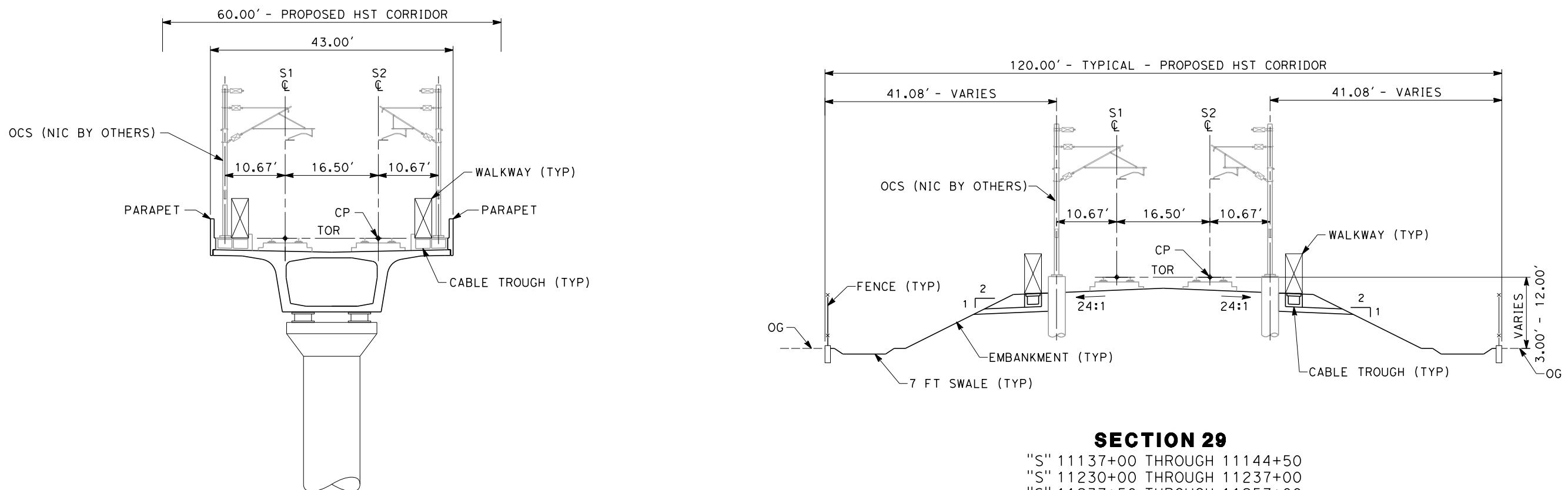


ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY K. SEYMORE	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.					
DRAWN BY P. TONKIN	NOT FOR CONSTRUCTION			DRAWING NO. TT-D3014					
CHECKED BY D. HUNT				SCALE AS SHOWN					
IN CHARGE R. COFFIN				SHEET NO.					
DATE 06/06/12									
REV	DATE	BY	CHK	APP	DESCRIPTION				

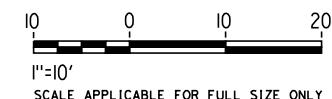
NOTES:

1. TRACKFORM SHOWN FOR INFORMATION ONLY (NIC BY OTHERS).
 2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.
 3. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL TYPICAL SECTIONS.



SECTION 2

"S" 11155+40 THROUGH 11191+50
"S" 11200+05 THROUGH 11216+00
TWIN TRACK - AERIAL STRUCTURE



SECTION 29

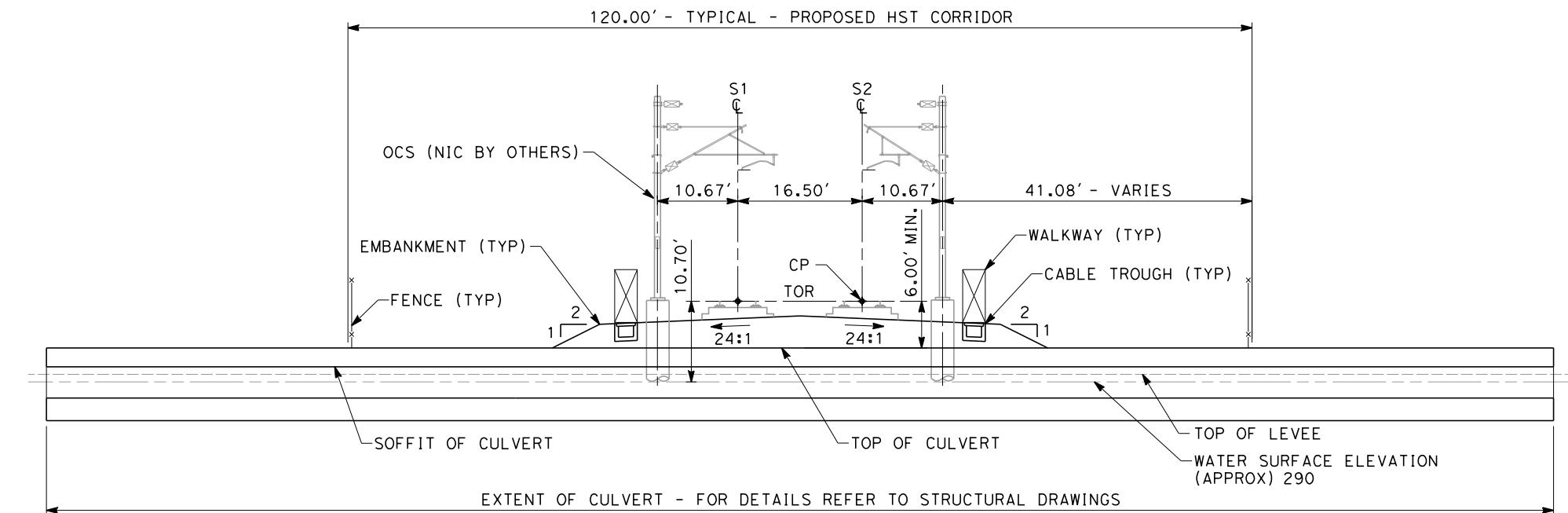
"S" 11137+00 THROUGH 11144+50
"S" 11230+00 THROUGH 11237+00
"S" 11237+50 THROUGH 11257+00
TWIN TRACK - EMBANKMENT WITH OPEN DRAINAGE

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY K. SEYMOUR	PROPOSED PRELIMINARY DESIGN NOT FOR CONSTRUCTION	 	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK GUIDEWAY TYPICAL SECTIONS				CONTRACT NO.		
					DRAWN BY P. TONKIN										DRAWING NO.
					CHECKED BY D. HUNT										TT-D3015
					IN CHARGE R. COFFIN										SCALE
					DATE 06/06/12										SHEET NO.
REV	DATE	BY	CHK	APP	DESCRIPTION										

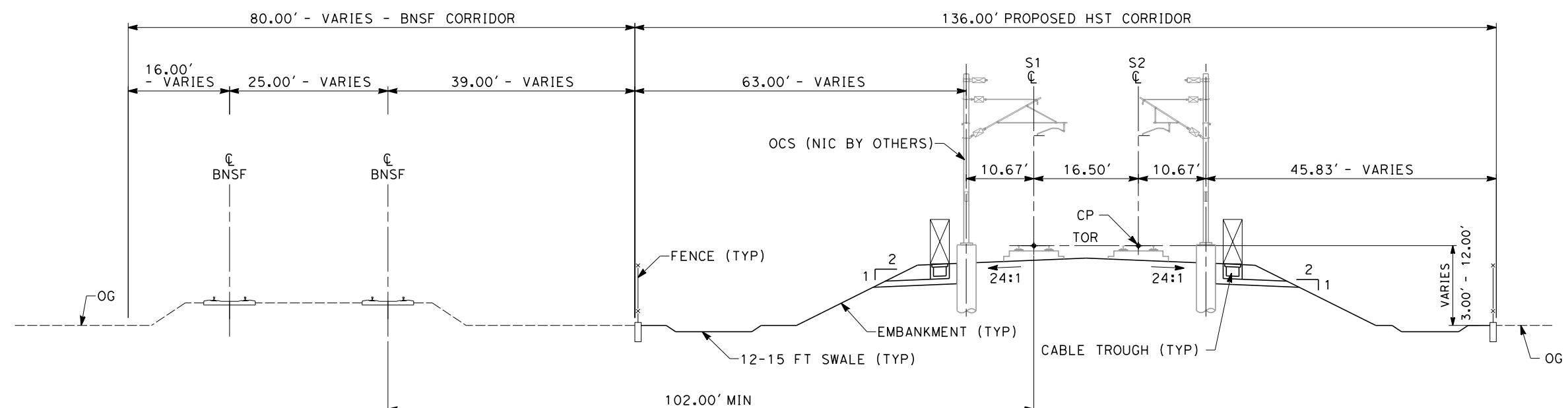
NOTES:

1. TRACKFORM SHOWN FOR INFORMATION ONLY (NIC BY OTHERS).
2. SUPERELEVATION IS NOT SHOWN. THE AMOUNT OF APPLIED SUPERELEVATION IS SHOWN IN THE CURVE DATA TABLES.
3. FOR STRUCTURE DIMENSIONS SEE STRUCTURAL TYPICAL SECTIONS.



SECTION 30

"S" 11237+00 THROUGH 11237+50
TWIN TRACK - AT GRADE OVER CENTRAL CANAL



SECTION 31

"S" 11257+00 THROUGH 11300+00
TWIN TRACK - AT GRADE ADJACENT TO BNSF WITH OPEN DRAINAGE

1"=10'
SCALE APPLICABLE FOR FULL SIZE ONLY

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY K. SEYMORE	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY P. TONKIN	NOT FOR CONSTRUCTION	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	DRAWING NO. TT-D3016
CHECKED BY D. HUNT		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN
IN CHARGE R. COFFIN			SHEET NO.
DATE 06/06/12			
REV	DATE	BY	CHK APP
DESCRIPTION			

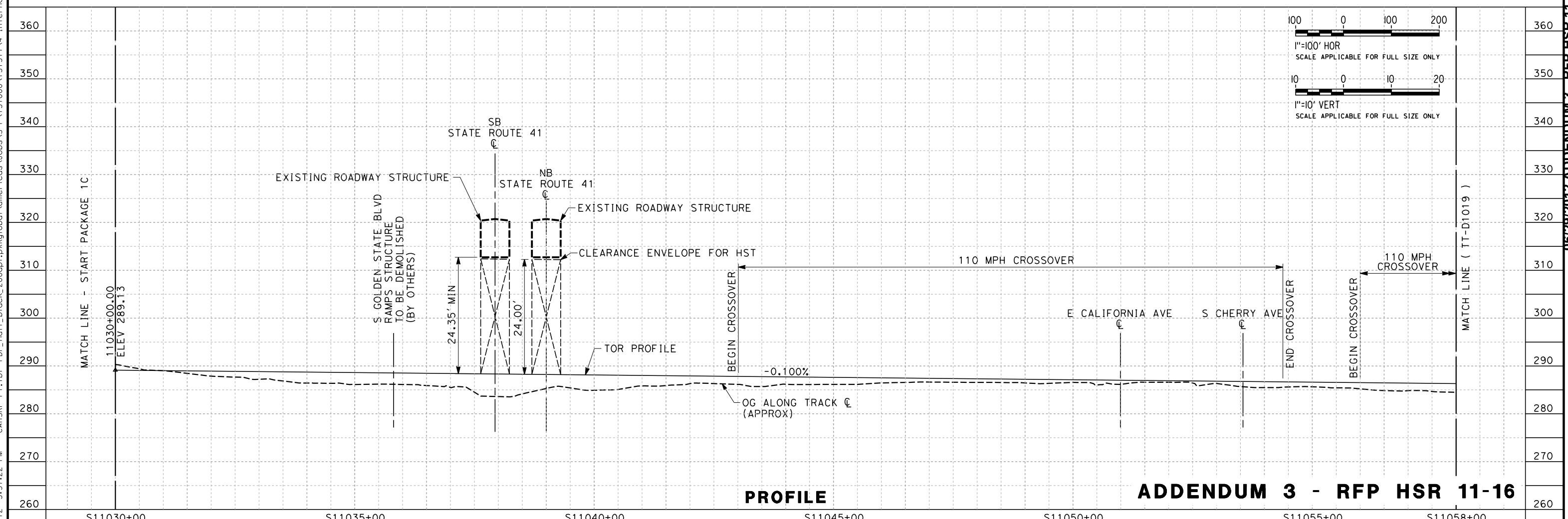
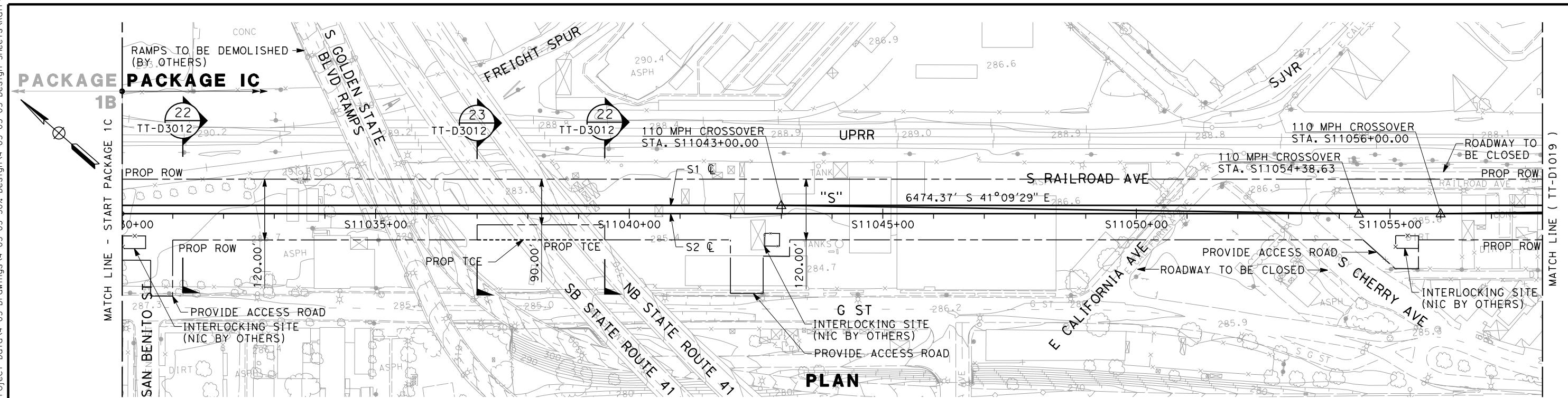
NOTES:

1. THE S1 LINE IS OFFSET TO S2 LINE BY 16.50 FEET.

TRACK GEOMETRY DATA ALONG SOUTHBOUND(S2) TRACK CENTERLINE													
CURVE NO.	DESCRIPTION	STATION	NORTHING	EASTING	BEARING	DISTANCE (FT)	R (FT)	Lc (FT)	SPIRAL TYPE	Ls (FT)	Ea (in)	Eu (in)	V (MPH)
105	POB	S11030+00.00	2148252.47	6331017.13	S41°09'29"E	6474.37							250
	TS	S11094+74.37	2143377.94	6335278.18					HALF SINE	3000.00			220
	SC	S11124+74.37	2141078.92	6337204.40					21288.50	12740.94			220
	CS	S11252+15.32	2182554.13	6300172.52					HALF SINE	2500.00	6.75	2.34	220
	ST	S11277+15.32	2126782.89	6341512.64									220
	POT	S11300+00.00	2124498.31	6341491.34									250

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY K. SEYMOUR	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP  CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK GUIDEWAY HORIZONTAL ALIGNMENT DATA	CONTRACT NO. DRAWING NO. TT-D0002 SCALE AS SHOWN SHEET NO.
DRAWN BY P. TONKIN	CHECKED BY D. HUNT	IN CHARGE R. COFFIN	DATE 06/06/12	
REV	DATE	BY	CHK	APP
				DESCRIPTION

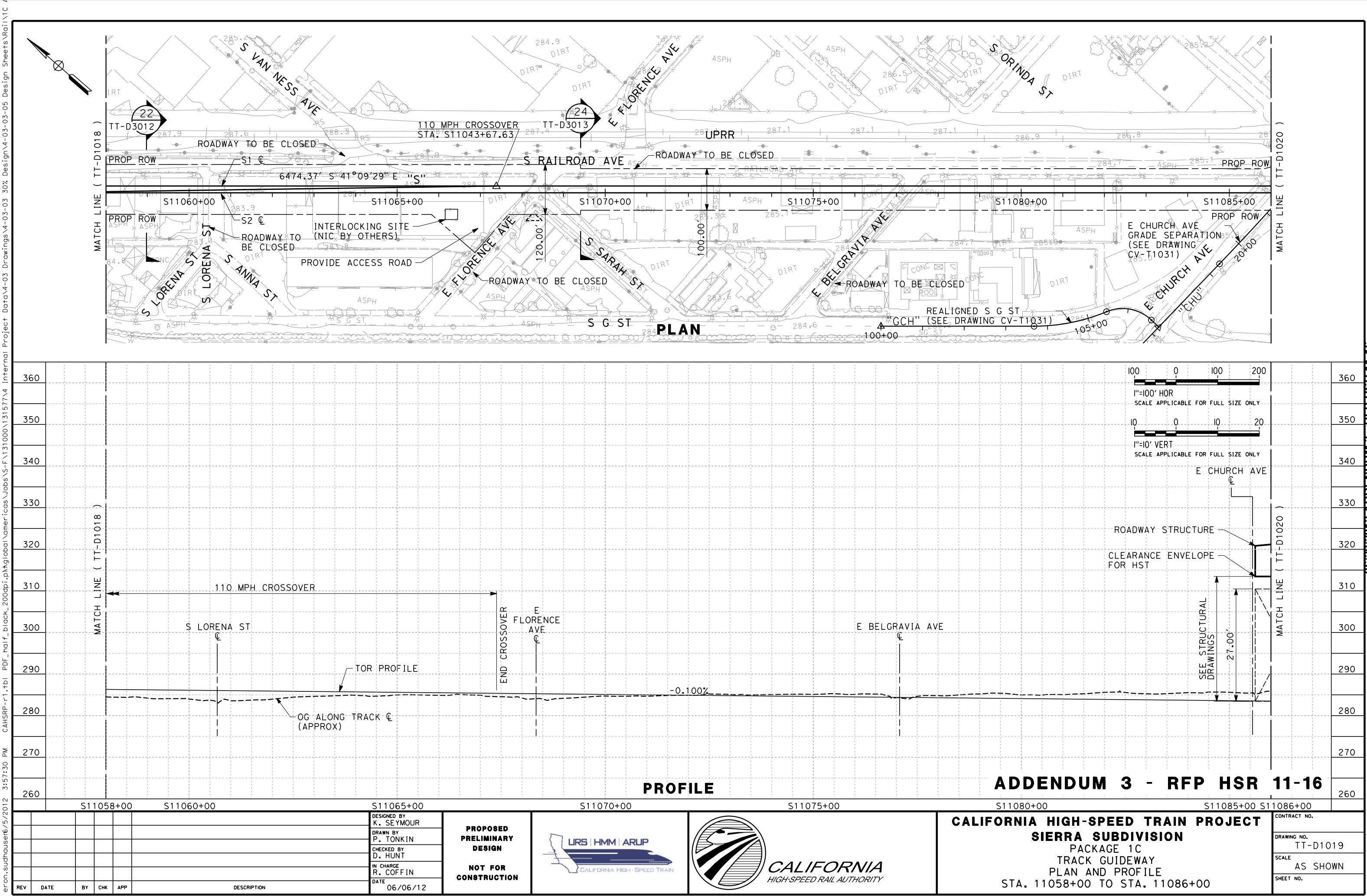


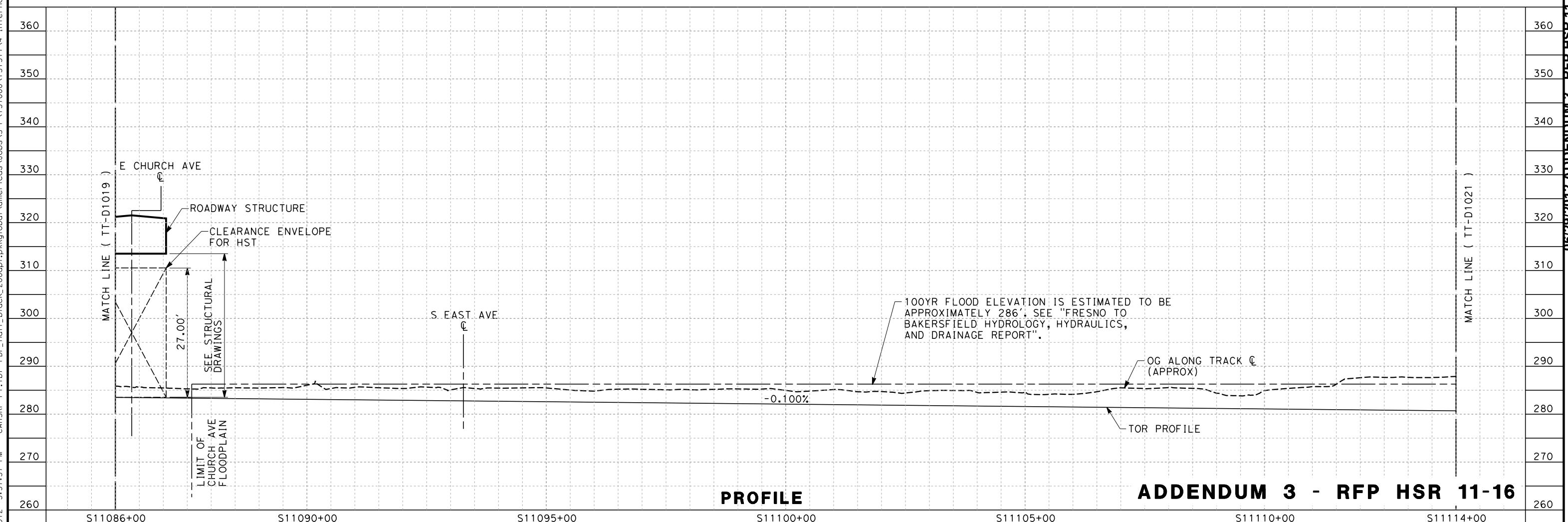
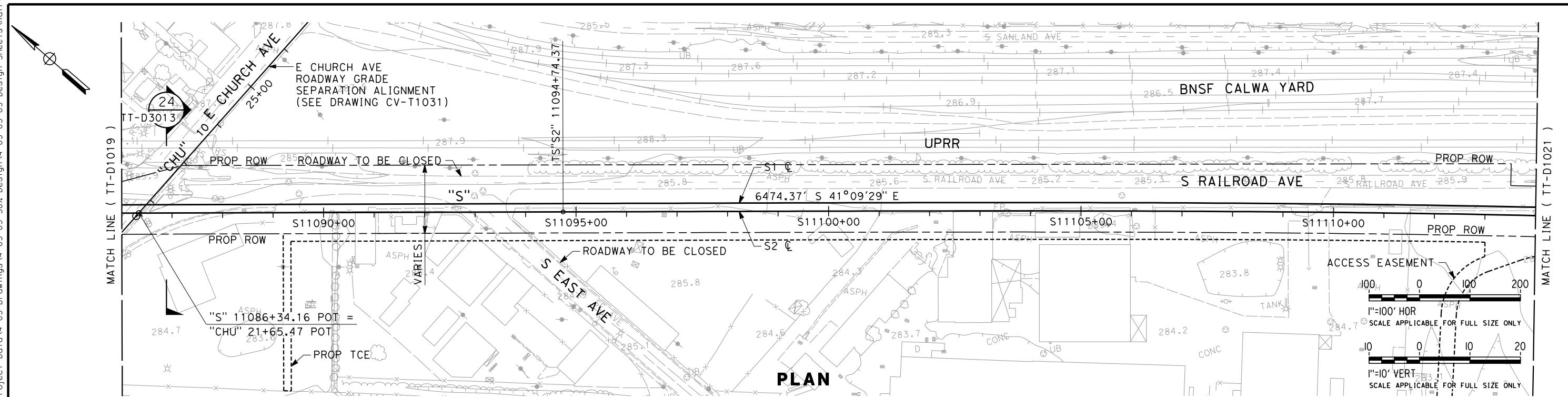
ADDENDUM 3 - RFP HSR 11-16



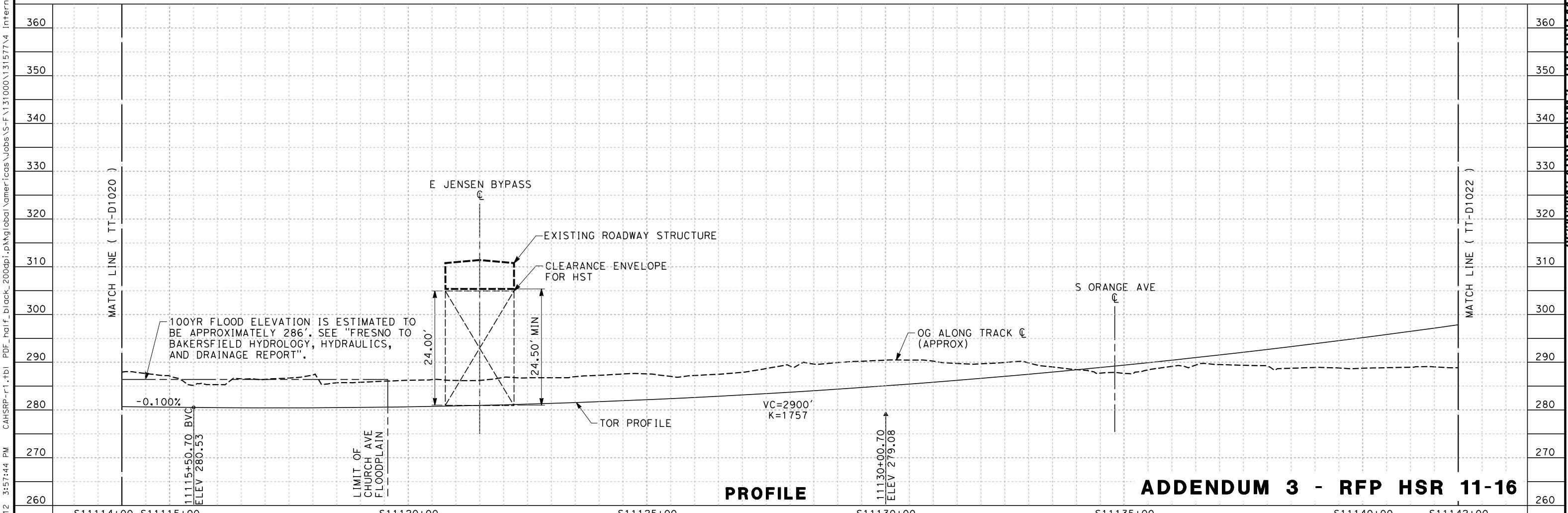
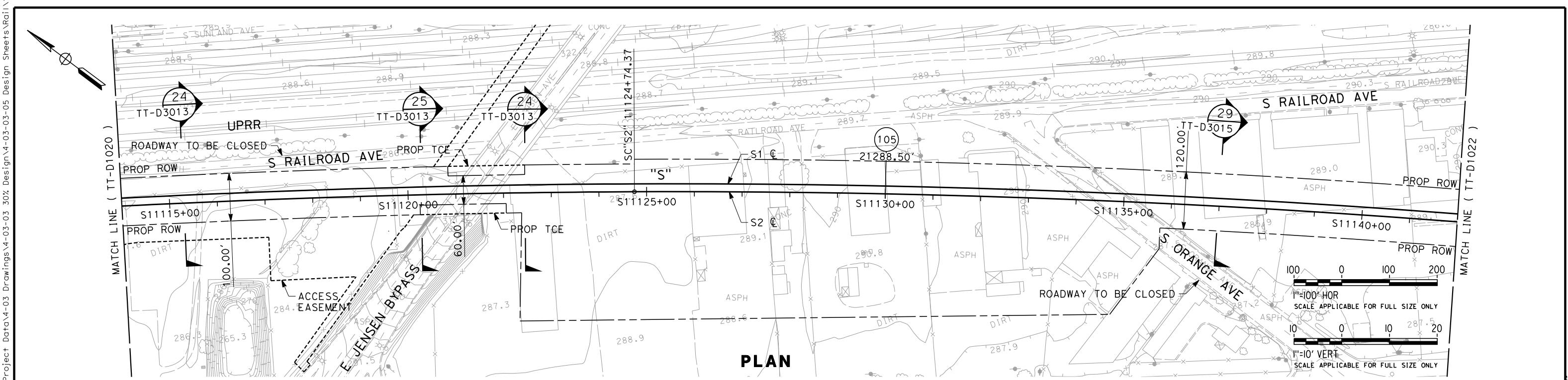
CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION

PACKAGE 1C
TRACK GUIDEWAY
PLAN AND PROFILE

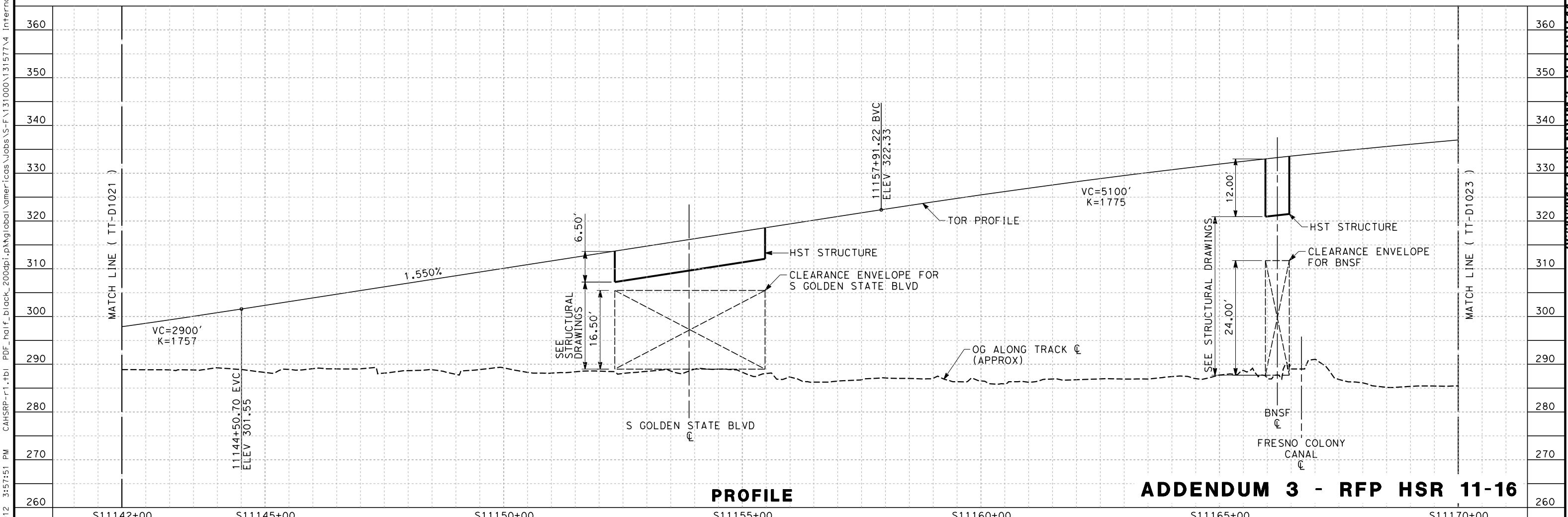
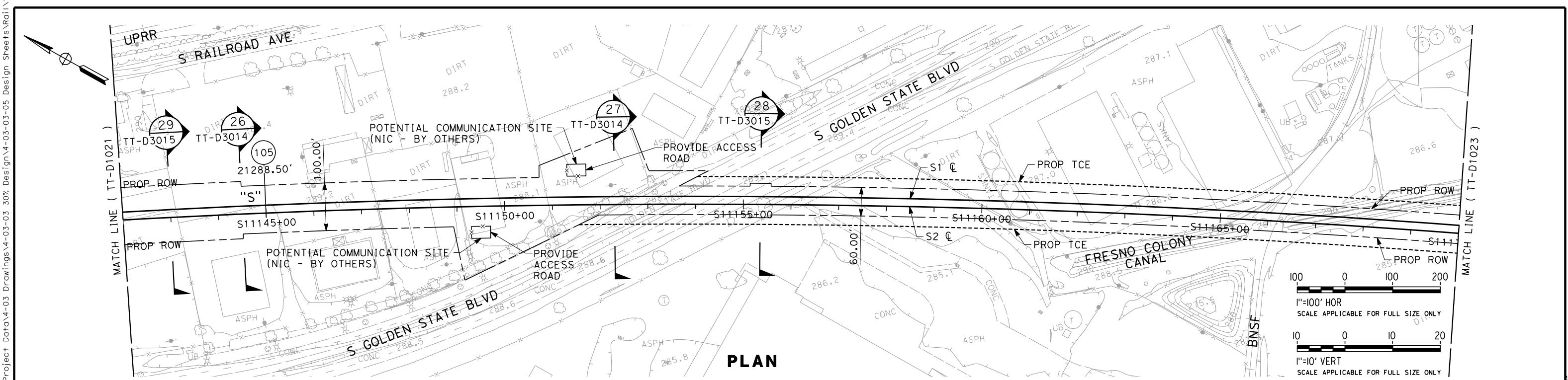




ADDENDUM 3 - RFP HSR 11-16

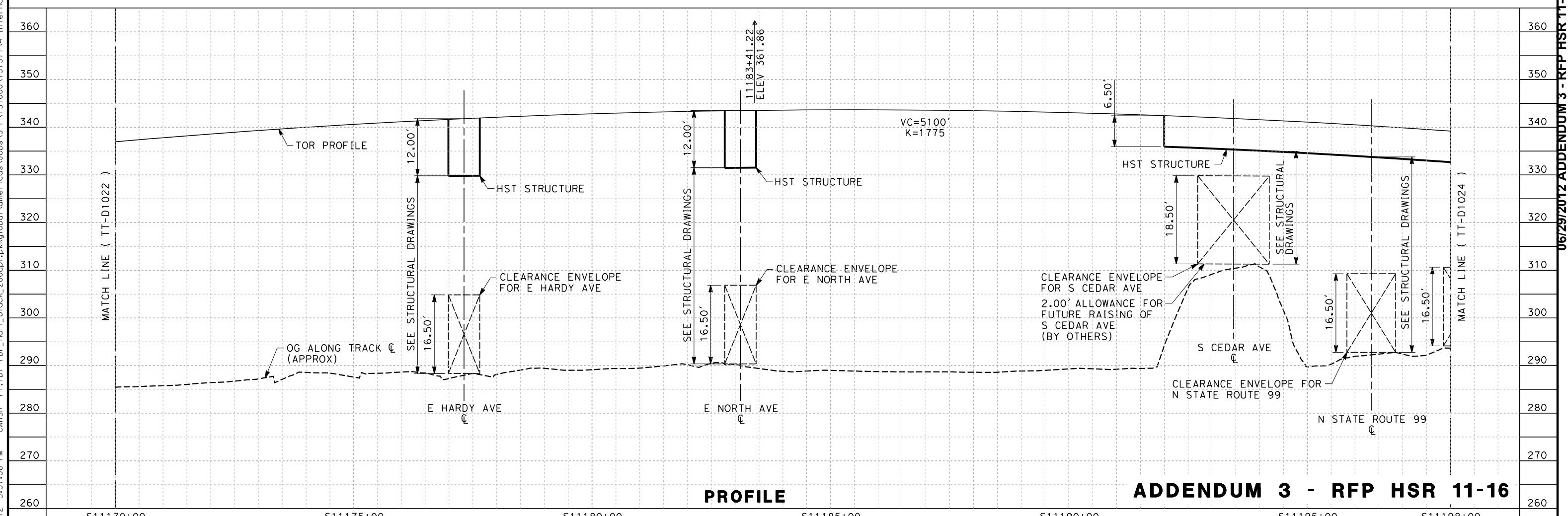
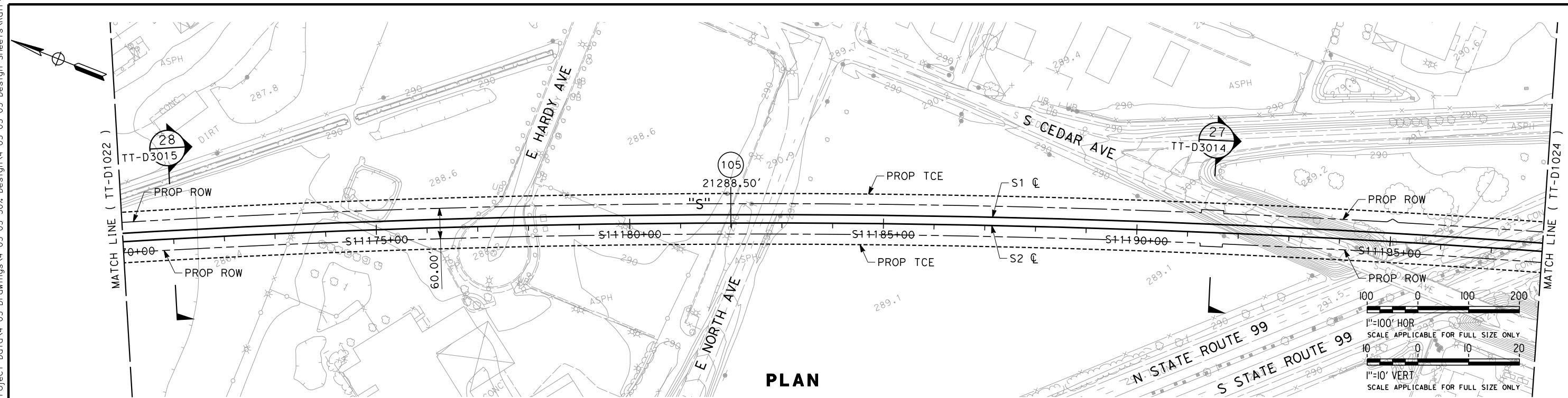


CONTRACT NO.						
DRAWING NO.	TT-D1021					
SCALE	AS SHOWN					
SHEET NO.						
REV	DATE	BY	CHK	APP	DESCRIPTION	STA. 11114+00 TO STA. 11142+00
						CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK GUIDEWAY PLAN AND PROFILE
						URS HMM ARUP
						CALIFORNIA HIGH-SPEED RAIL AUTHORITY



ADDENDUM 3 - RFP HSR 11-16

CONTRACT NO.	
DRAWING NO.	TT-D1022
SCALE	AS SHOWN
SHEET NO.	
ERON.SUDHAUSER/6/5/2012 3:57:51 PM CAHSPR-r1.tбл PDF - half black 200dpi.pn	Internal Project Data\4-03 Drawings\4-03-03 30% Design Sheets\Rail\IC
REV DATE BY CHK APP	DESCRIPTION
K. SEYOUR DRAWN BY P. TONKIN CHECKED BY D. HUNT IN CHARGE R. COFFIN DATE 06/06/12	PROPOSED PRELIMINARY DESIGN NOT FOR CONSTRUCTION
URS HMM ARUP	CALIFORNIA HIGH-SPEED TRAIN AUTHORITY
CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK GUIDEWAY PLAN AND PROFILE STA. 11142+00 TO STA. 11170+00	



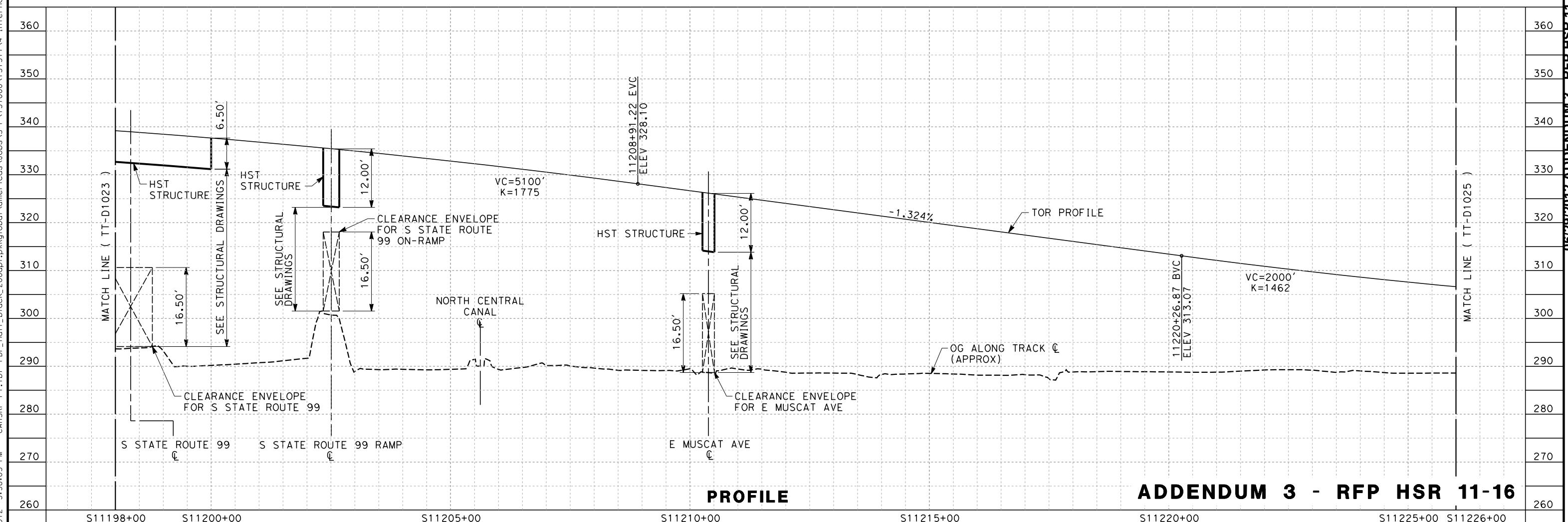
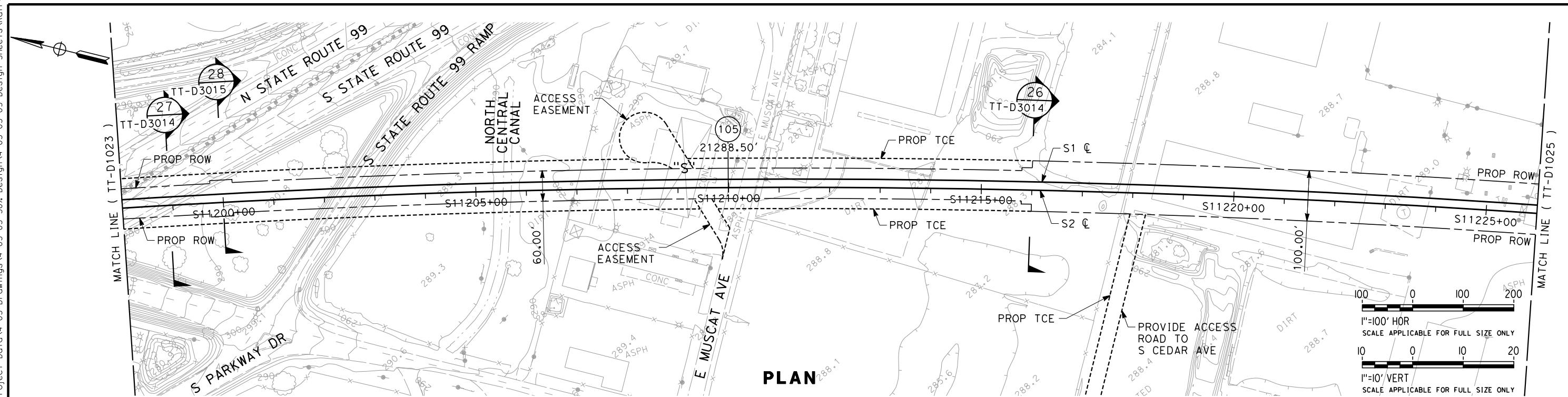
ADDENDUM 3 - RFP HSR 11-16

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
TRACK GUIDEWAY
PLAN AND PROFILE
STA. 11170+00 TO STA. 11198+00



CONTRACT NO.
DRAWING NO.
TT-D1023
SCALE
AS SHOWN
SHEET NO.

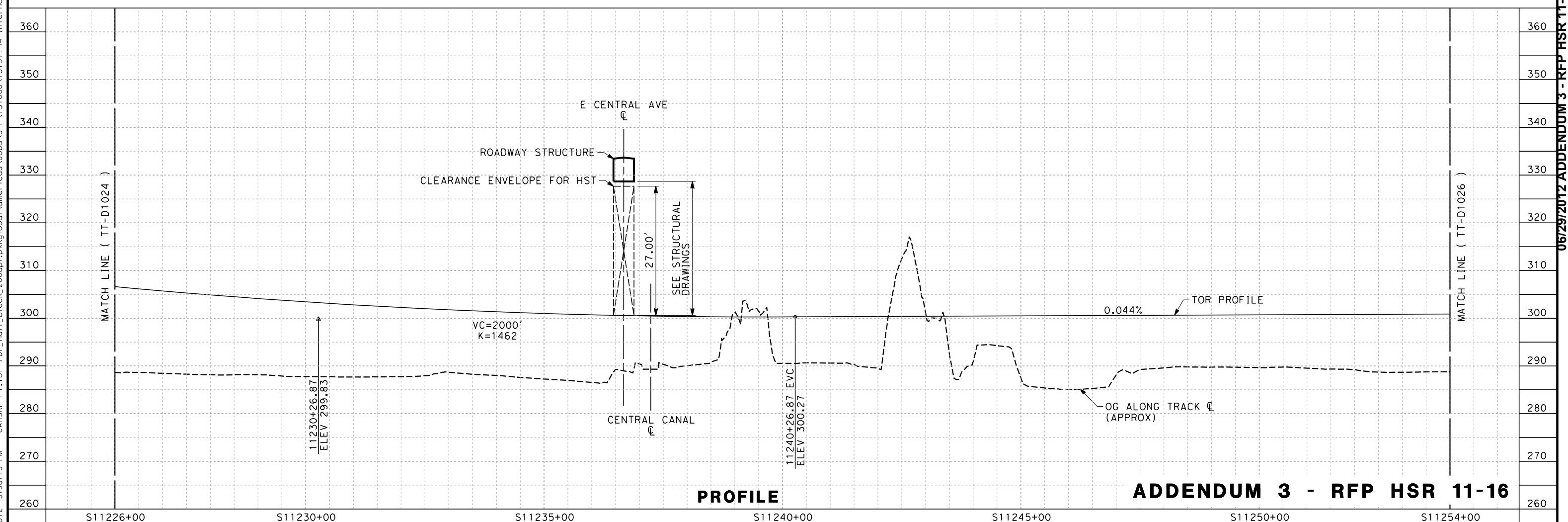
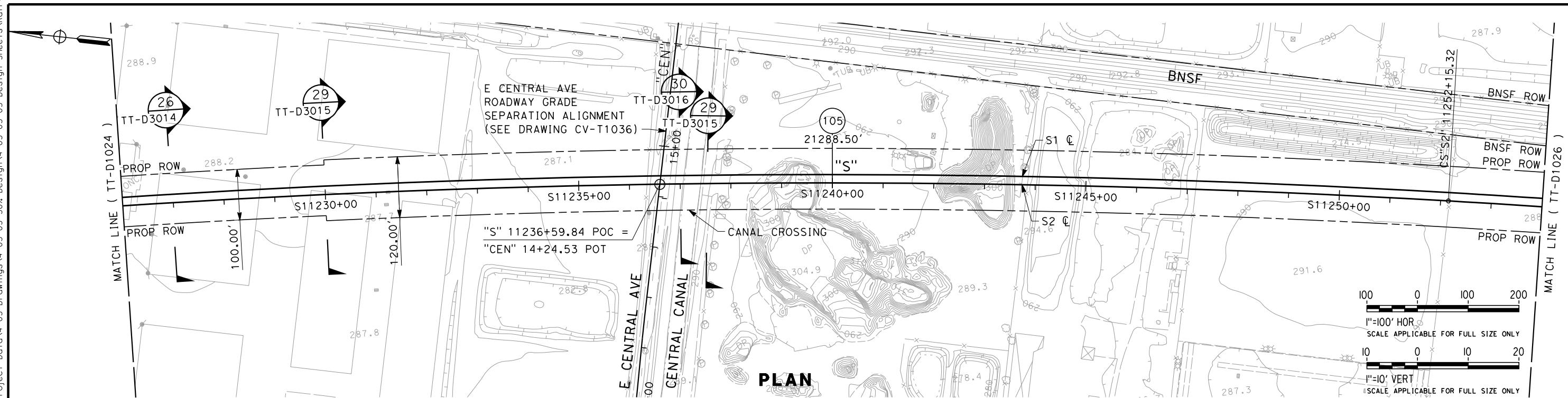


ADDENDUM 3 - RFP HSR 11-16

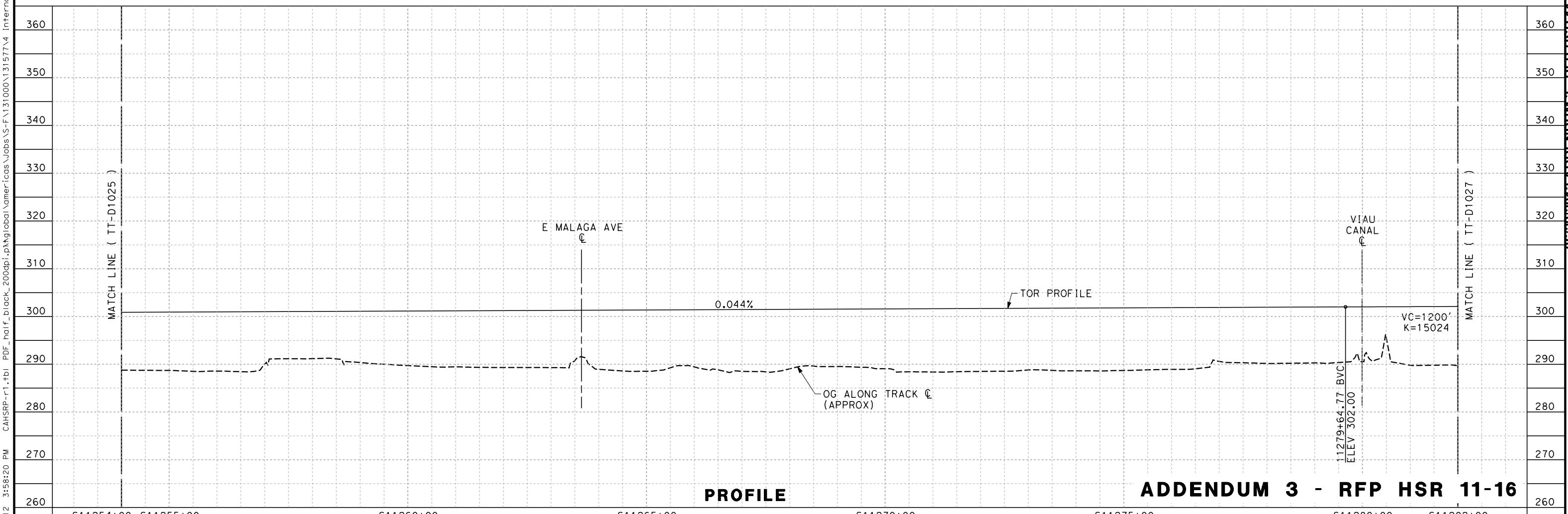
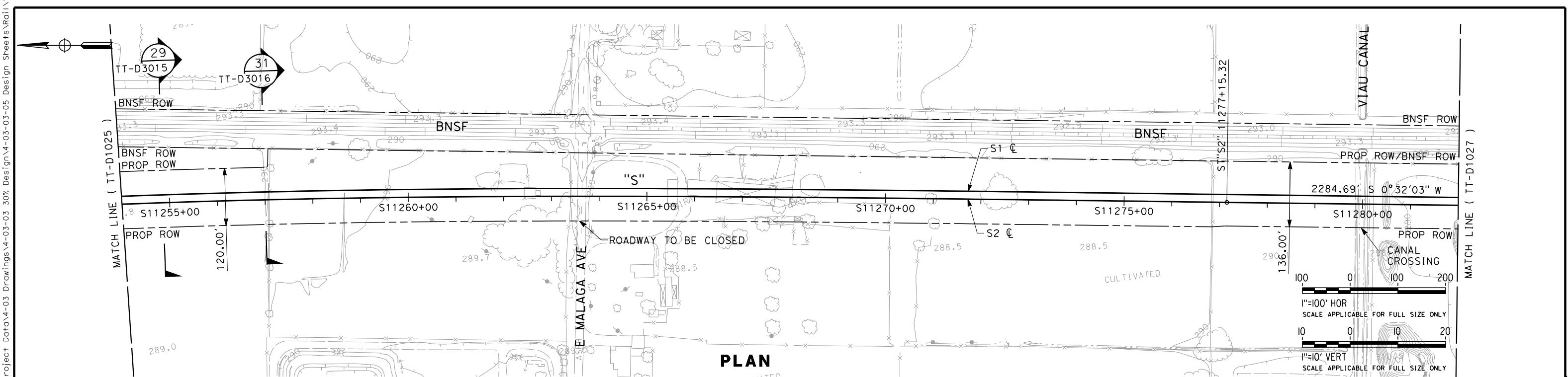
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
TRACK GUADEWAY
PLAN AND PROFILE
STA. 11198+00 TO STA. 11226+00



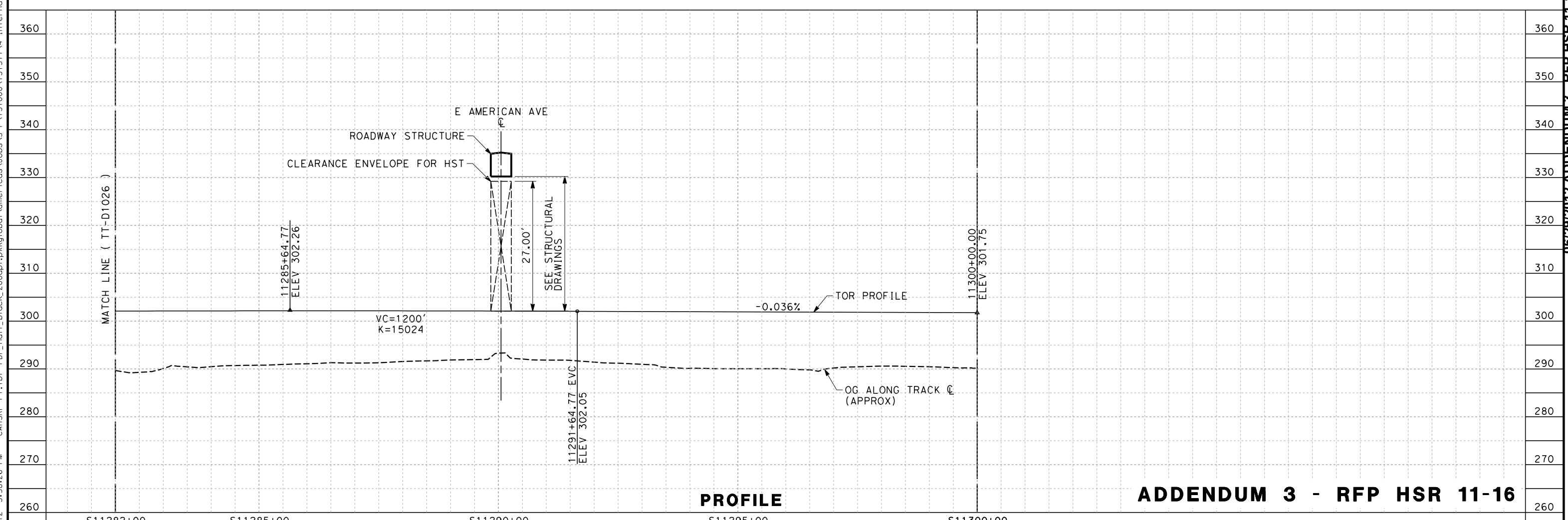
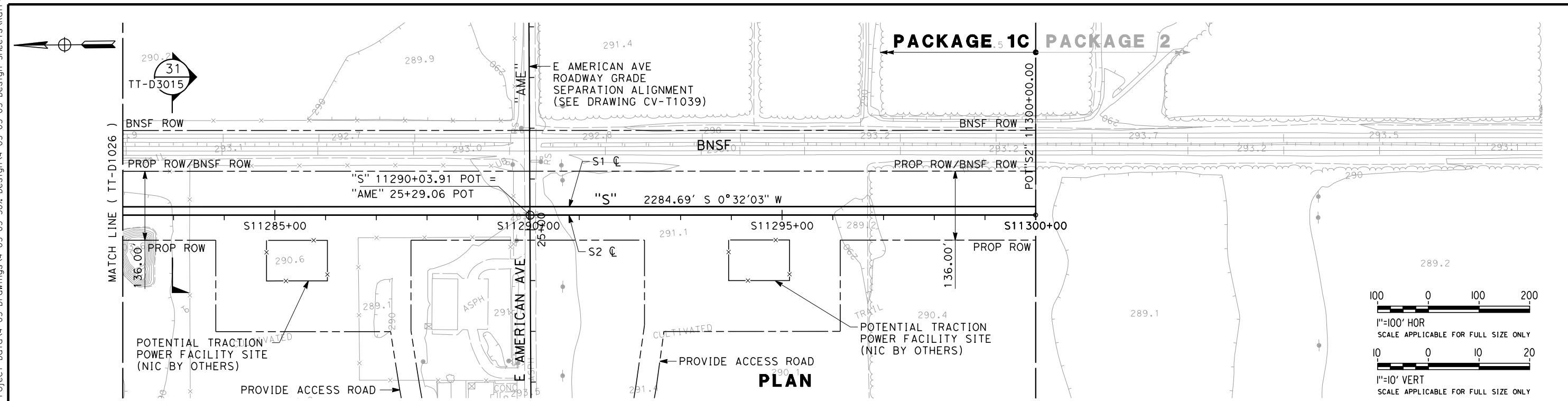


ADDENDUM 3 - RFP HSR 11-16



REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY K. SEYMORE	DRAWN BY P. TONKIN	CHECKED BY D. HUNT	IN CHARGE R. COFFIN	PROPOSED PRELIMINARY DESIGN	NOT FOR CONSTRUCTION	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.	DRAWING NO.	SCALE	SHEET NO.	
	06/06/12															TT-D1026	AS SHOWN	

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1C
TRACK GUADEWAY
PLAN AND PROFILE
STA. 11254+00 TO STA. 11282+00



ADDENDUM 3 - RFP HSR 11-16



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1C
TRACK GUIDEWAY
PLAN AND PROFILE
STA. 11282+00 TO STA. 11300+00**

CONTRACT NO.
DRAWING NO.
TT-D1027
CALE AS SHOWN
HEET NO.

HST STRUCTURAL NOTES

- A. SPECIFICATIONS FOR DESIGN AND CONSTRUCTION
- CONSTRUCTION SPECIFICATION SHALL BE THE DESIGN-BUILD STANDARD SPECIFICATION, CALIFORNIA HIGH SPEED TRAIN, JUNE 2011.
 - THE STRUCTURAL DESIGN OF STRUCTURES SUPPORTING HIGH SPEED TRAINS SHALL BE BASED ON THE REQUIREMENTS OF THE CALIFORNIA HIGH SPEED TRAIN AUTHORITY.
 - DESIGN CRITERIA FOR HIGHWAY BRIDGES SHALL BE THE CALIFORNIA BRIDGE DESIGN SPECIFICATION. FOR HIGHWAY BRIDGES PASSING OVER THE HIGH SPEED TRAIN THE BRIDGE DESIGN SPECIFICATION SHALL BE SUPPLEMENTED BY THE CALIFORNIA HIGH SPEED TRAIN REQUIREMENTS FOR SEISMIC DESIGN.
 - DESIGN CRITERIA FOR RAILROAD STRUCTURES NOT SUPPORTING HIGH SPEED TRAINS SHALL BE THE AMERICAN RAILWAY ENGINEERING AND MAINTENANCE-OF-WAY ASSOCIATION (AREMA) MANUAL FOR RAILWAY ENGINEERING (APRIL 2008). FOR RAILROAD BRIDGES PASSING OVER THE HIGH SPEED TRAIN THE BRIDGE DESIGN SPECIFICATION SHALL BE SUPPLEMENTED BY THE CALIFORNIA HIGH SPEED TRAIN REQUIREMENTS FOR SEISMIC DESIGN.
- B. DESIGN METHOD
- DESIGN SHALL BE PERFORMED TO THE LOAD AND RESISTANCE FACTOR (LRFD) DESIGN METHOD.
- C. GENERAL
- FOR ACRONYMS AND ABBREVIATIONS SEE DRAWING STD-SB-001 THROUGH STD-SB-002.
 - ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND ALL OTHER DRAWINGS RELATED TO THE WORK.
 - EMBEDDED ITEMS SUCH AS PIPES, INSERTS, SLEEVES AND CONDUITS, AND ANY RECESSES, NICHES OR OPENINGS REQUIRED FOR UTILITY, ARCHITECTURAL, MECHANICAL AND ELECTRICAL INSTALLATIONS ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS. CONTRACTOR SHALL REFER TO THE UTILITY, ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR THE LOCATIONS AND DETAILS OF THESE ITEMS. CONTRACTOR SHALL REVIEW AND APPROVE ALL PENETRATIONS PRIOR TO CONSTRUCTION. PENETRATIONS WHICH LOCAL THICKENING OF CONCRETE OR STEEL MEMBERS AND /OR SUPPLEMENTAL REINFORCING SHALL BE SHOWN ON THE STRUCTURAL DRAWINGS.
 - THE VERTICAL CONTROL OF ALL TRACK STRUCTURES IS BASED ON THE CONTROL POINT AS DEFINED ON THE CROSS SECTION DRAWINGS.
 - CONTRACTORS ATTENTION IS DIRECTED TO THE AREAS OF SAG VERTICAL CURVES. IN SUCH AREAS CAUTION SHOULD BE EXERCISED THAT THE DIMENSION TO THE INVERT OF CONCRETE OF GUIDEWAY IS NEVER LESS THAN THAT SHOWN FOR INVERT DETAILS.
- D. MATERIAL PROPERTIES
- CONCRETE 28 DAY COMPRESSIVE STRENGTH (MINIMUM) UNLESS NOTED OTHERWISE
 - DRILLED SHAFTS: $f'c=4500$ PSI
 - PRECAST-PRESTRESSED PILES: $f'c=6,500$ PSI
 - FORMED CAST-IN-PLACE STRUCTURAL CONCRETE: $f'c=5,000$ PSI
 - PRECAST GIRDERS OR SEGMENTS OF GIRDERS: $f'c=6,000$ PSI
 - UNLESS NOTED OTHERWISE ON THE DRAWINGS, OR SPECIFIED, MINIMUM STRUCTURAL CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
 - ALL EXPOSED CONCRETE EDGES AND CORNERS SHALL BE CHAMFERED WITH A $\frac{3}{4}$ INCH, 45 DEGREE CHAMFER UNLESS NOTED OTHERWISE.
 - REINFORCING STEEL SHALL CONFORM TO THE SPECIFICATIONS OF ASTM A 706 GRADE 60.
 - PRESTRESSING STEEL
 - STRAND: ASTM A416/AASHTO M203, GRADE 270, LOW RELAXATION
FRICTION COEFFICIENT: 0.25
WOBBLE COEFFICIENT: 0.0002 PER FT
ANCHOR SET: 0.375"
APPARENT MODULUS: 28,500 KSI
MINIMUM JACKING STRESS: 216 KSI (80% ULTIMATE)
MAXIMUM ANCHORING STRESS: 189 KSI (70% ULTIMATE)
MAXIMUM STRESS AFTER ANCHOR SET: 202 KSI (75% ULTIMATE)
STRAND DIAMETER: 0.6" (AREA=0.216 SQ IN)
- E. SEISMIC LOADING AND DESIGN
- THERE ARE TWO LEVELS OF DESIGN EARTHQUAKES: THE MAXIMUM CONSIDERED EARTHQUAKE (MCE) AND THE OPERATING BASIS EARTHQUAKE (OBE) DEFINED AS:
- MAXIMUM CONSIDERED EARTHQUAKE (MCE): GROUND MOTIONS CORRESPONDING TO GREATER OF (1) A PROBABILISTIC SPECTRUM BASED UPON A 10% PROBABILITY OF EXCEEDANCE IN 100 YEARS (i.e., A RETURN PERIOD OF 950 YEARS) AND (2) A DETERMINISTIC SPECTRUM BASED UPON THE LARGEST MEDIAN RESPONSE RESULTING FROM THE MAXIMUM RUPTURE (CORRESPONDING TO M_{u}) OF ANY FAULT IN THE VICINITY OF THE STRUCTURE.
 - OPERATING BASIS EARTHQUAKE (OBE): GROUND MOTIONS CORRESPONDING TO A PROBABILISTIC SPECTRUM BASED UPON AN 86% PROBABILITY OF EXCEEDANCE IN 100 YEARS (i.e., A RETURN PERIOD OF 50 YEARS).
- b) POST TENSIONING BARS:
ASTM A722/AASHTO M275, GRADE 150, TYPE II
ANCHOR SET: 0.0625"
APPARENT MODULUS: 30,000 KSI
MAXIMUM JACKING STRESS: 113 KSI
MAXIMUM ANCHORING STRESS: 105 KSI
MAXIMUM STRESS AFTER LOSSES: 96 KSI
- c) SUPERSTRUCTURE (CAST-IN-PLACE, PRECAST)
TOP OF DECK: 2.5"
- d) SUPERSTRUCTURE (CAST-IN-PLACE, PRECAST)
EXTERIOR SURFACES: 2"
- e) SUPERSTRUCTURE (CAST-IN-PLACE, PRECAST)
INTERIOR SURFACES: 1.5"
- f) SUPERSTRUCTURE (CAST-IN-PLACE, PRECAST)
INTERIOR SURFACES: 1.5"
- g) CONCRETE SURFACES NOT EXPOSED TO WEATHER, SOIL OR WATER:
PRINCIPAL REINFORCEMENT: 2"
STIRRUPS, TIES AND SPIRALS: 1.5"
8. ALLOWABLE STRESSES IN POST-TENSIONED CONCRETE
- SUPERSTRUCTURE CONCRETE STRESSES AT THE SERVICE LIMIT STATE
MAXIMUM COMPRESSION: 0.45 $f'c$ (POST-TENSIONING AND PERMANENT LOADS)
0.60 $f'c$ (PERMANENT LOADS AND TRANSIENT LOADS)
 - LONGITUDINAL TENSION
NO TENSION STRESSES ARE ALLOWED IN PRECOMPRESSED TENSILE ZONE AFTER ALL LOSSES HAVE OCCURRED.
 - PRINCIPAL TENSION STRESS: 0.1106 SQUARE ROOT $f'c$ (KSI)
 - THE SUPERSTRUCTURE SHALL BE DESIGNED FOR APPLICABLE SERVICE, STRENGTH AND EXTREME LIMIT STATES AS DEFINED BY THE LOAD GROUPS IN THE DESIGN MANUAL.

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES GENERAL NOTES SHEET 1 OF 2	CONTRACT NO. DRAWING NO. ST-B0011 SCALE NO SCALE SHEET NO.
REV DATE BY CHK APP	DESCRIPTION	IN CHARGE R. COFFIN DATE 06/06/12		

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

DESIGN: HIGH SPEED RAIL DESIGN CRITERIA, AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 4TH EDITION AND CALTRANS AMENDMENTS, ACI 350 (WATER CONVEYING STRUCTURES)

STANDARD SPECIFICATIONS: HIGH SPEED RAIL SPECIFICATIONS, CALTRANS STANDARD SPECIFICATIONS DATED MAY 2006

SEISMIC DESIGN: HIGH SPEED RAIL DESIGN CRITERIA, CALTRANS SEISMIC DESIGN CRITERIA (SDC) VERSION 1.6, NOVEMBER 2010

LIVE LOADING: COOPER E50 - HST ROUTE COOPER E80 - UPRR ROUTE

WIND LOAD: 100 MPH WIND VELOCITY

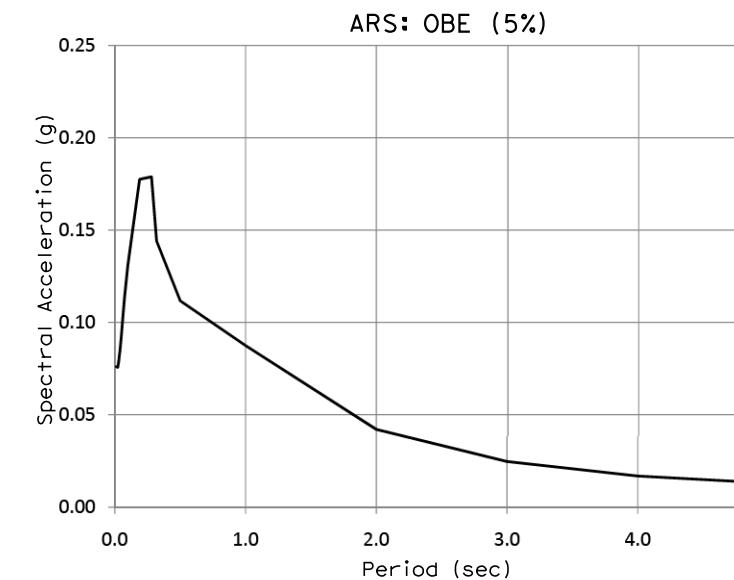
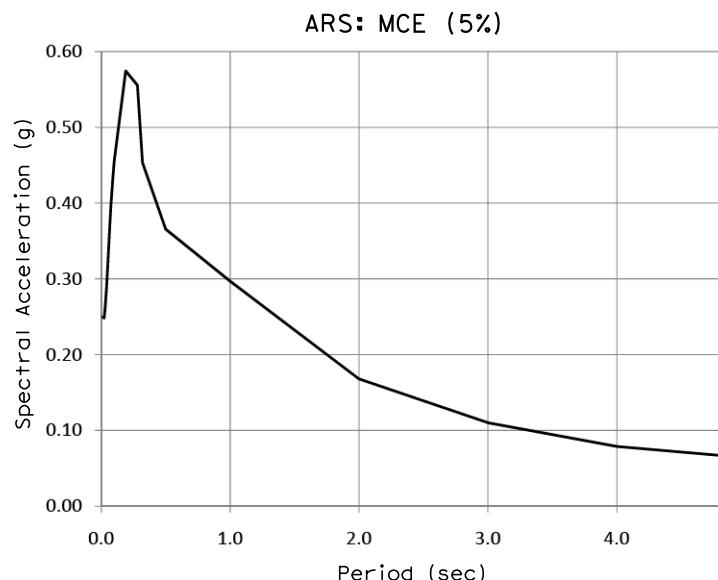
REINFORCED CONCRETE: $f_y = 60 \text{ KSI}$
 $f'_c = \text{SEE CONCRETE STRENGTH AND TYPE LIMITS}$

PILES: Drilled shafts
 $f'_c = 4.5 \text{ KSI}$

Precast-prestressed
 $f'_c = 6.5 \text{ KSI}$

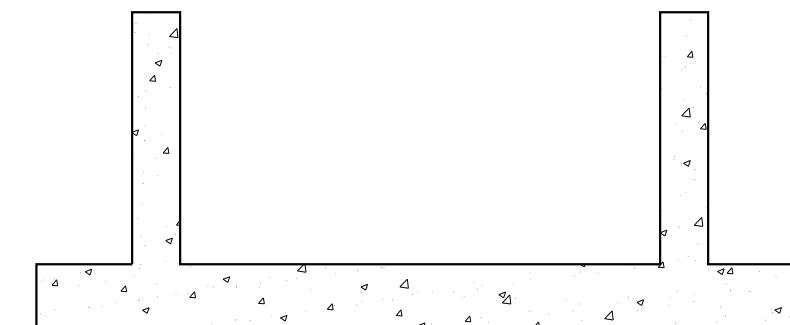
PRESTRESSED CONCRETE: LOW RELAXATION STRANDS
 $f_{py} = 243 \text{ KSI}$
 $f_{pu} = 270 \text{ KSI}$
 $f'_{ci} = 5 \text{ KSI AT TIME OF RELEASE}$
 $f'_c = 7 \text{ KSI AT 28 DAYS}$

THE ARS CURVES SHOWN BELOW ARE FOR PRELIMINARY DESIGN. REVISED ARS CURVES WILL BE PROVIDED FOR DETAILED DESIGN.



GENERAL STRUCTURAL NOTES

- PILE/SHAFT LENGTHS TO BE DETERMINED.
- EMBEDDED ITEMS REQUIRED FOR UTILITY INSTALLATIONS ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS. CONTRACTOR SHALL REFER TO THE UTILITY DRAWINGS FOR THE LOCATIONS AND DETAILS OF THESE ITEMS.
- MSE WALL REINFORCEMENT AND PANEL TO BE DETERMINED.
- BRIDGE ARTICULATION IS DENOTED BY:
'M' FOR MOVING SUPPORTS (SLIDING BEARINGS)
AND
'F' FOR FIXED SUPPORTS (FIXED BEARINGS OR CAST-IN COLUMNS).
WHERE A COLUMN SUPPORTS TWO BEARING SETS, THE ARTICULATION OF EACH SET IS INDICATED SEPARATELY.
- FOR LAUNCHED TRUSS STRUCTURES,
ADDITIONAL BRACING MAY BE REQUIRED IF DECK SLAB IS NOT TO BE CONSTRUCTED BEFORE LAUNCH.



STRUCTURAL CONCRETE, TRENCH STRUCTURE
 $f'_c = 4 \text{ ksi at 28 days}$

CONCRETE STRENGTH AND TYPE LIMITS

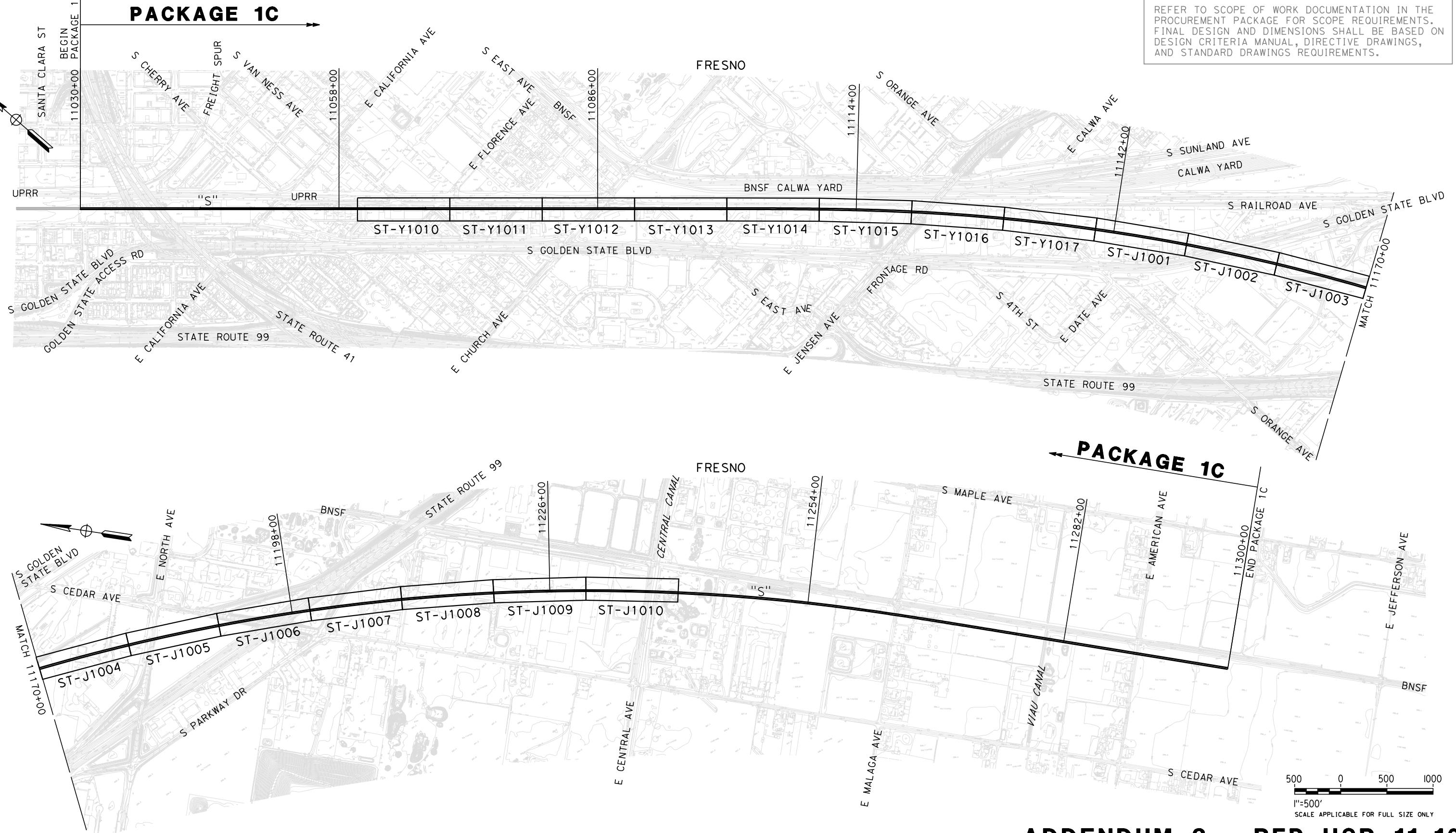
NO SCALE

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION	
CHECKED BY Q. LIU		
IN CHARGE R. COFFIN		
DATE 06/06/12		



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1C
TRACK STRUCTURES
GENERAL NOTES
SHEET 2 OF 2

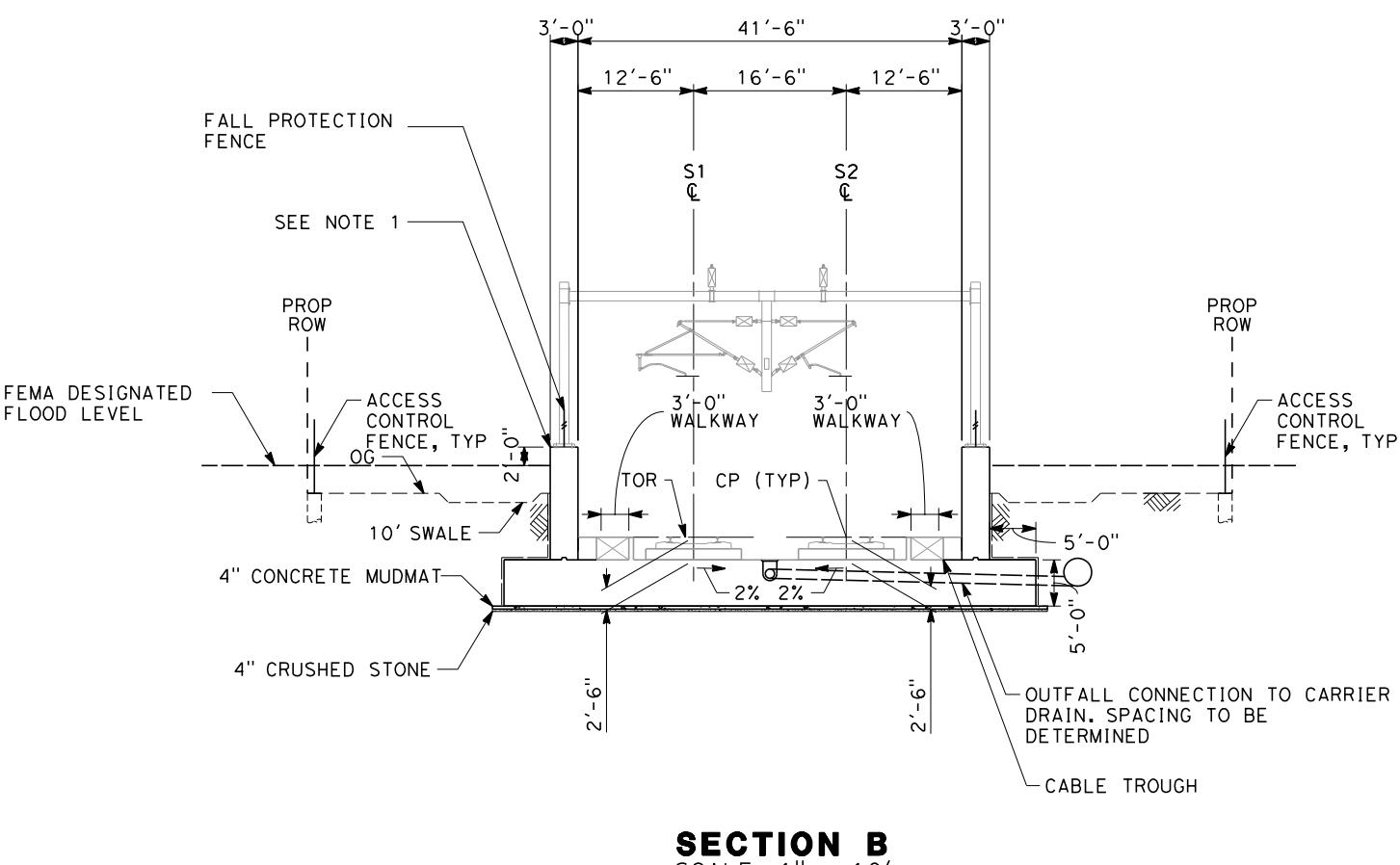
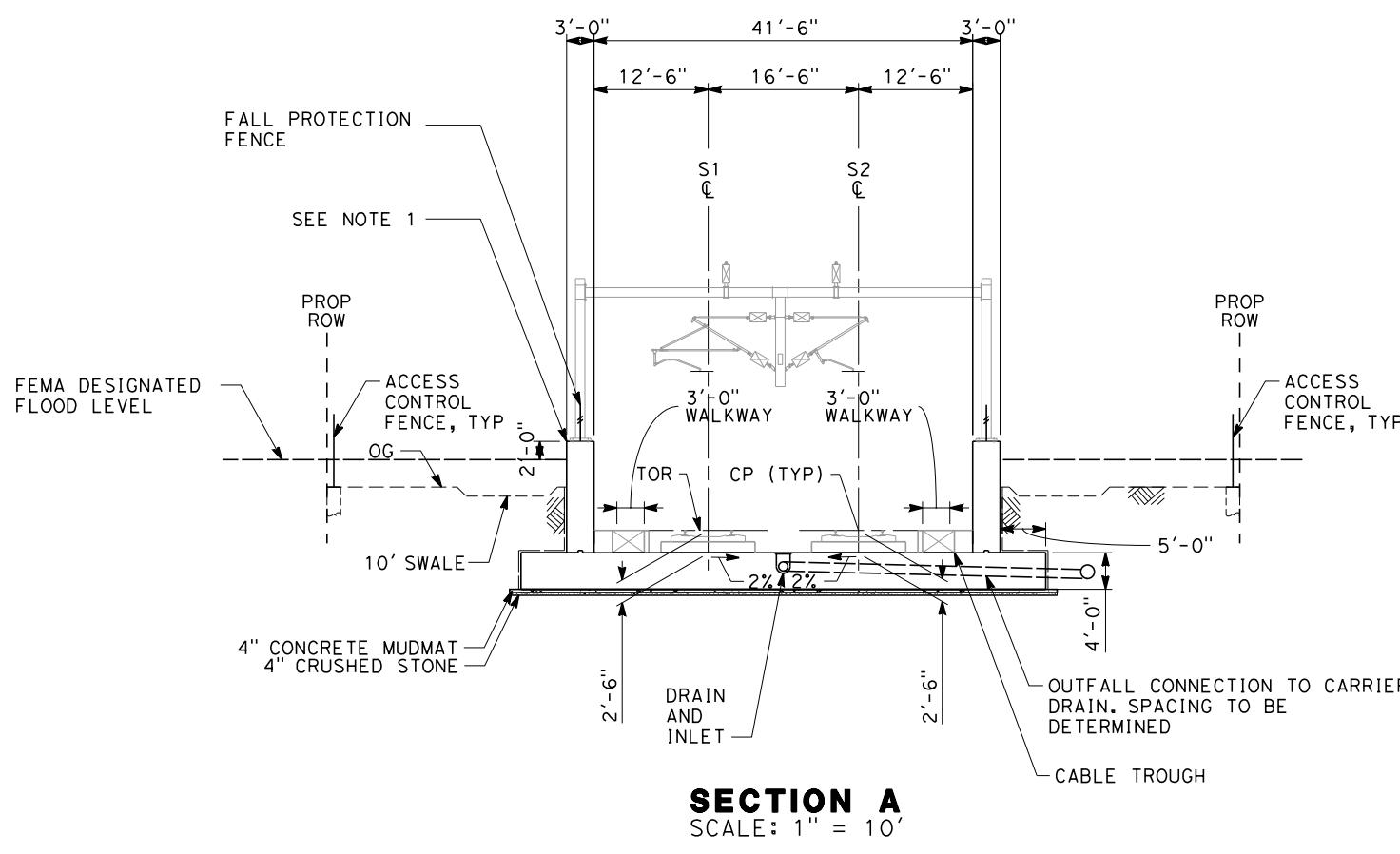
CONTRACT NO.
DRAWING NO.
ST-B0012
SCALE
NO SCALE
SHEET NO.

PACKAGE 1C**ADDENDUM 3 - RFP HSR 11-16**

CONTRACT NO.					
DRAWING NO.	ST-B0014				
SCALE	AS SHOWN				
SHEET NO.					
DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION			PACKAGE 1C TRACK STRUCTURES KEY MAP	DRAWING NO.
CHECKED BY O. LIU					SCALE
IN CHARGE R. COFFIN					SHEET NO.
DATE 04/27/12					
REV	DATE	BY	CHK	APP	DESCRIPTION

NOTES:

- TOP OF WALL LEVEL IS 3 FEET ABOVE GRADE EXCEPT IN THE FEMA DESIGNATED FLOOD PLAIN WHERE THE TOP OF WALL LEVEL SHALL BE THE GREATER OF 5 FEET ABOVE GRADE OR 2 FEET ABOVE THE MAXIMUM FEMA FLOOD DEPTH.



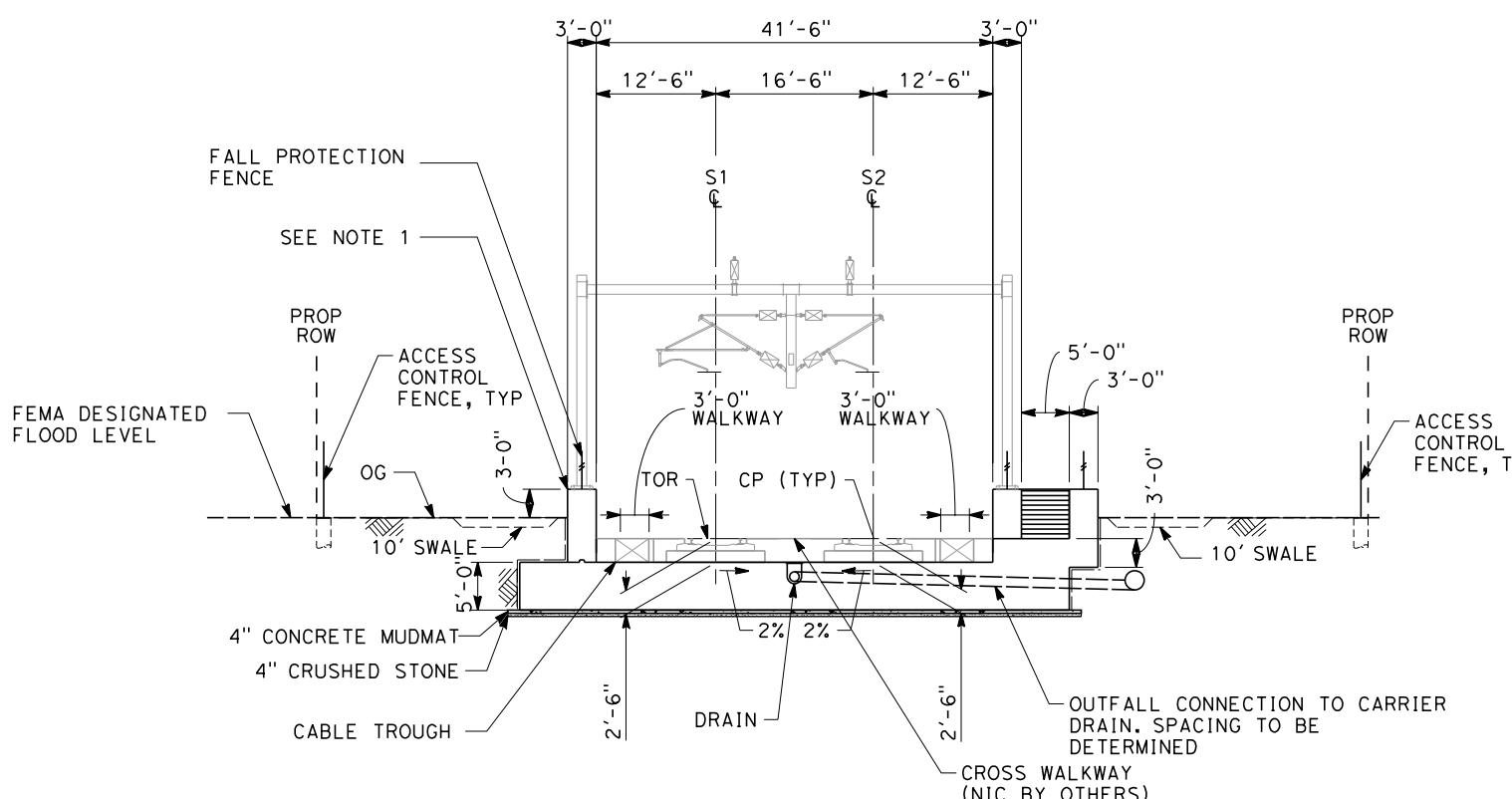
10 0 10 20
1"=10'
SCALE APPLICABLE FOR FULL SIZE ONLY

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.		
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION			DRAWING NO. ST-Y3005		
CHECKED BY O. LIU				SCALE AS SHOWN		
IN CHARGE R. COFFIN				SHEET NO.		
DATE 06/06/12						
REV	DATE	BY	CHK	APP	DESCRIPTION	CONTRACT NO.

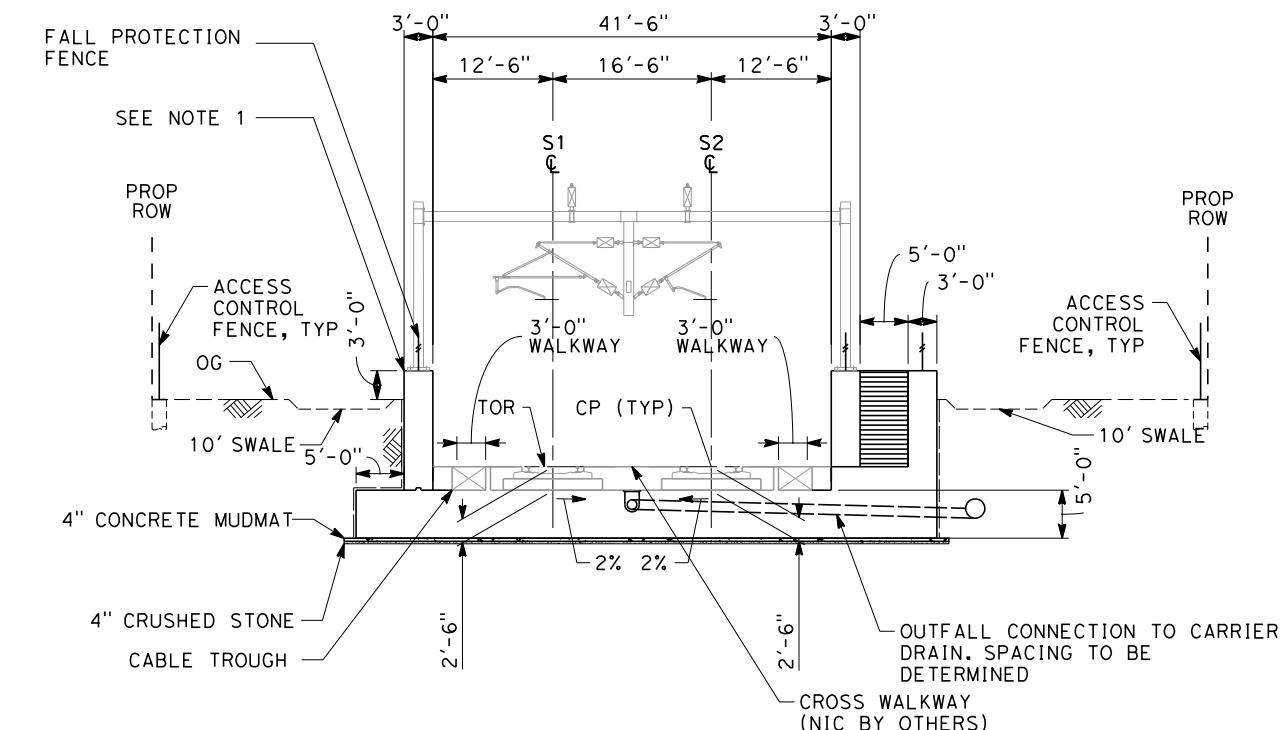
NOTES:

- TOP OF WALL LEVEL IS 3 FEET ABOVE GRADE EXCEPT IN THE FEMA DESIGNATED FLOOD PLAIN WHERE THE TOP OF WALL LEVEL SHALL BE THE GREATER OF 5 FEET ABOVE GRADE OR 2 FEET ABOVE THE MAXIMUM FEMA FLOOD DEPTH.



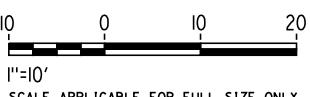
SECTION C
SCALE: 1" = 10'

STA 11095+00



SECTION D
SCALE: 1" = 10'

STA 11119+95

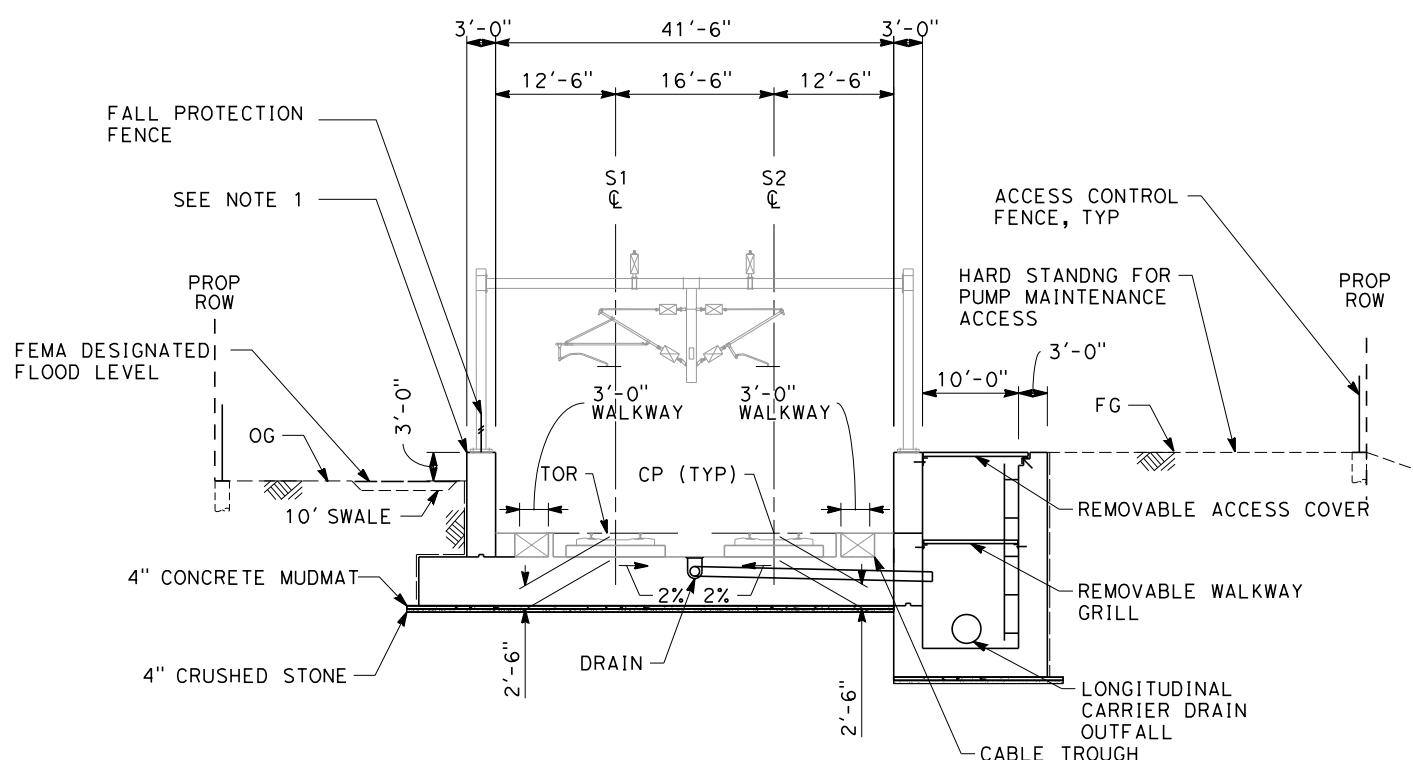


ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION			DRAWING NO. ST-Y3006
CHECKED BY O. LIU				SCALE AS SHOWN
IN CHARGE R. COFFIN				SHEET NO.
DATE 06/06/12				
REV	DATE	BY	CHK	APP
DESCRIPTION				

NOTES:

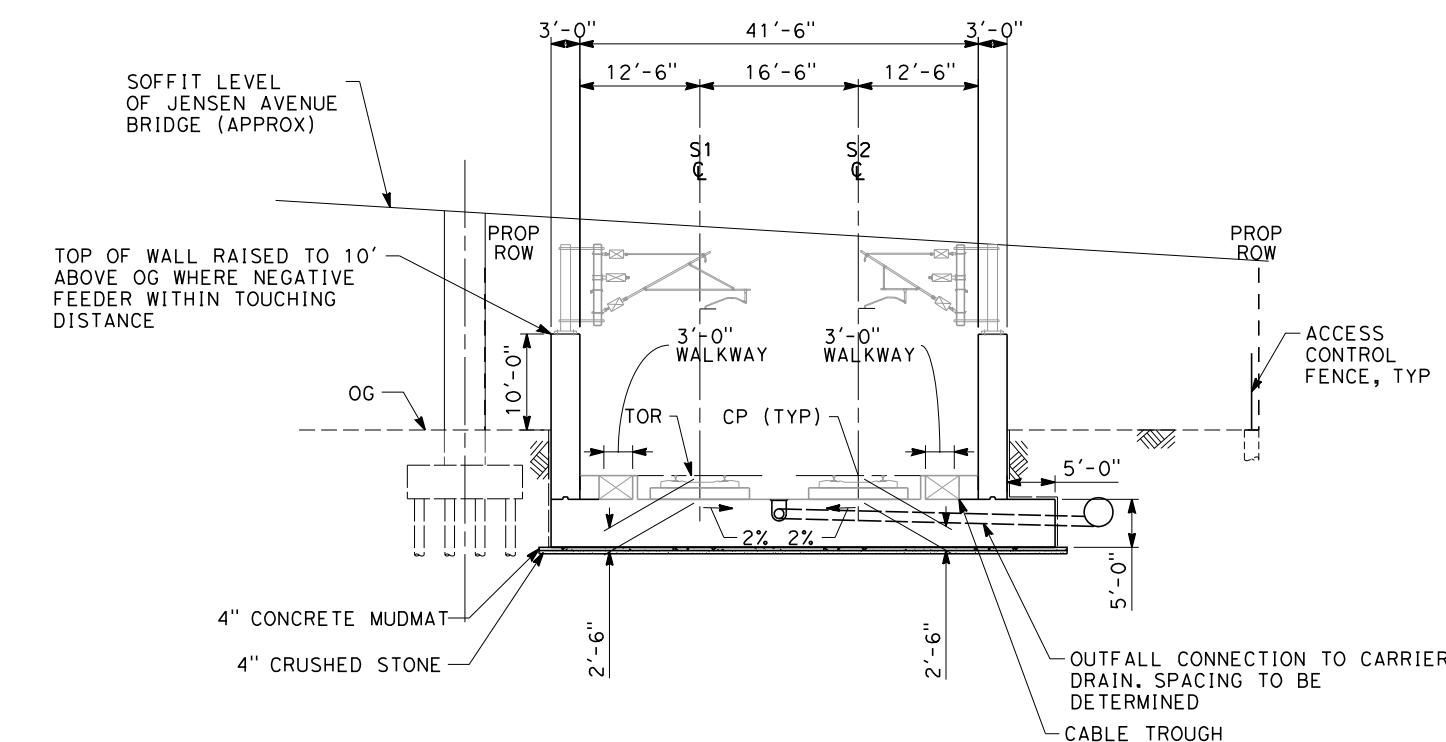
1. TOP OF WALL LEVEL IS 3 FEET ABOVE GRADE EXCEPT IN THE FEMA DESIGNATED FLOOD PLAIN WHERE THE TOP OF WALL LEVEL SHALL BE THE GREATER OF 5 FEET ABOVE GRADE OR 2 FEET ABOVE THE MAXIMUM FEMA FLOOD DEPTH.



SECTION

SECTION
SCALE: 1" = 1

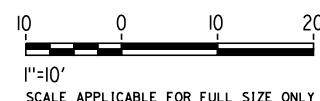
STA 11119+



SECTION F

SECTION I
SCALE: 1" = 10'

STA 11121+50



SCALE APPLICABLE FOR FULL SIZE ONLY

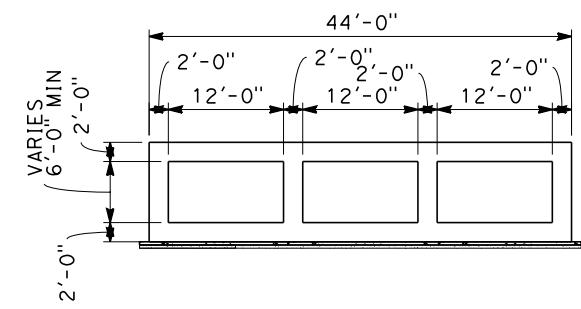
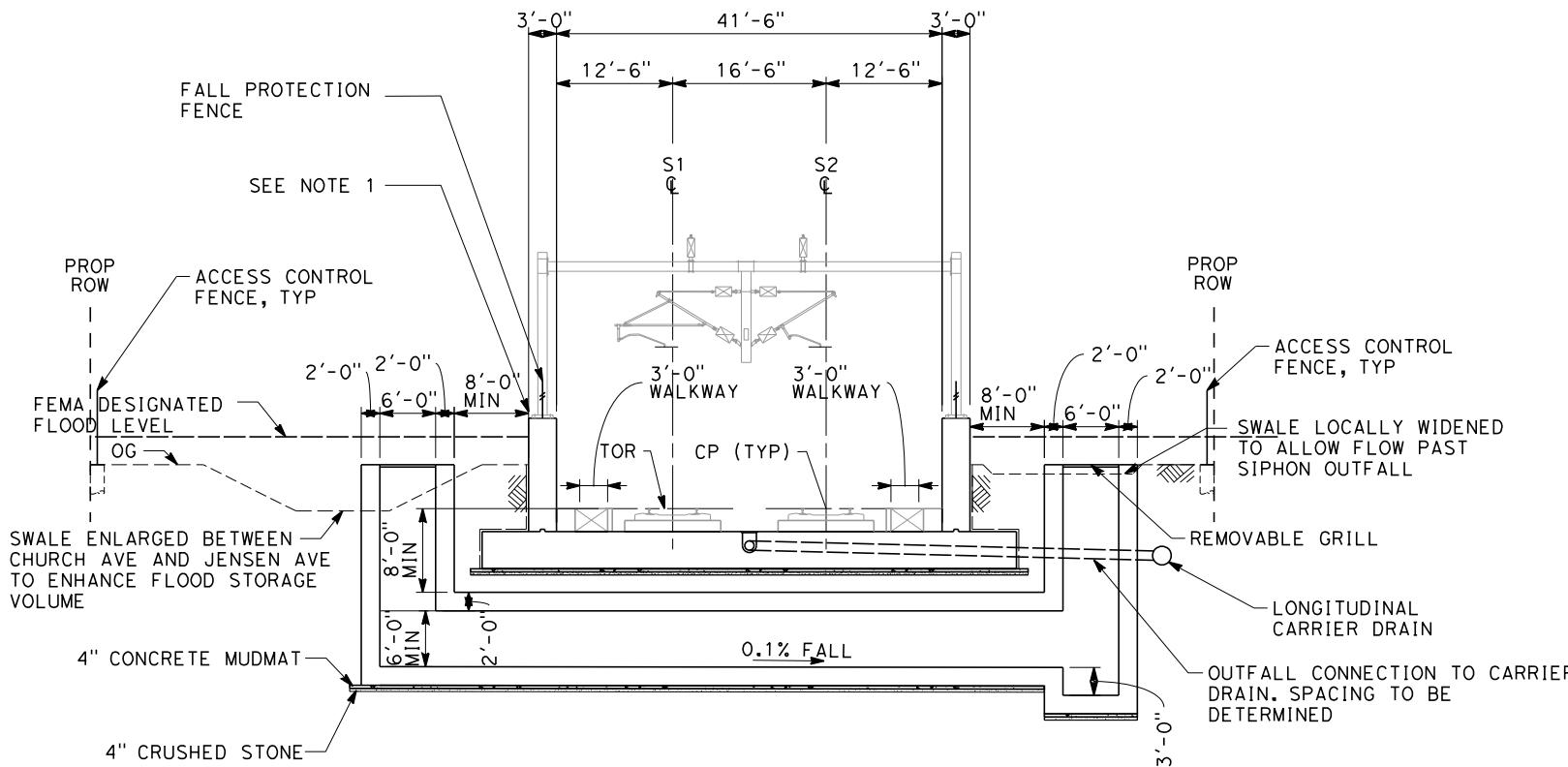
[View Details](#)

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES JENSEN TRENCH TYPICAL SECTIONS	CONTRACT NO. DRAWING NO. ST-Y3007 SCALE AS SHOWN SHEET NO.
					DRAWN BY F. PALERMO					
					CHECKED BY Q. LIU					
					IN CHARGE R. COFFIN					
					DATE 06/06/12	NOT FOR CONSTRUCTION				
REV	DATE	BY	CHK	APP	DESCRIPTION					

NOTES:

- TOP OF WALL LEVEL IS 3 FEET ABOVE GRADE EXCEPT IN THE FEMA DESIGNATED FLOOD PLAIN WHERE THE TOP OF WALL LEVEL SHALL BE THE GREATER OF 5 FEET ABOVE GRADE OR 2 FEET ABOVE THE MAXIMUM FEMA FLOOD DEPTH.



10 0 10 20
1'=10'
SCALE APPLICABLE FOR FULL SIZE ONLY

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY A. ARMSTRONG	DRAWN BY F. PALERMO	CHECKED BY O. LIU	IN CHARGE R. COFFIN	PROPOSED PRELIMINARY DESIGN	NOT FOR CONSTRUCTION	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES JENSEN TRENCH TYPICAL SECTIONS	CONTRACT NO.
REV	DATE	BY	CHK	APP	DESCRIPTION	06/06/12			DRAWING NO. ST-Y3008 SCALE AS SHOWN SHEET NO.

NOTES:

1. GRADE ELEVATIONS SHOWN ARE EQUAL TO TOP OF RAIL.
2. ALL PIERS ARE NORMAL TO THE STATION LINE UNLESS OTHERWISE SHOWN.
3. REFER TO TRACK ALIGNMENT DATA TABLE FOR CURVE AND TANGENT INFORMATION.

TOP OF RAIL "S" LINE

BVC 11115+50.70 EVC 11144+50.70
ELEV 280.53 ELEV 301.55

2900' VC R/C= 1.55%
+0.057%/STA

MATCH LINE STA. 11060+00

TOTAL LENGTH OF TRENCH = 6760'-0"

TOP OF RAIL

APPROX OG

BEGIN CONCRETE TRENCH
STA 11069+40

TRENCH RETAINING WALL

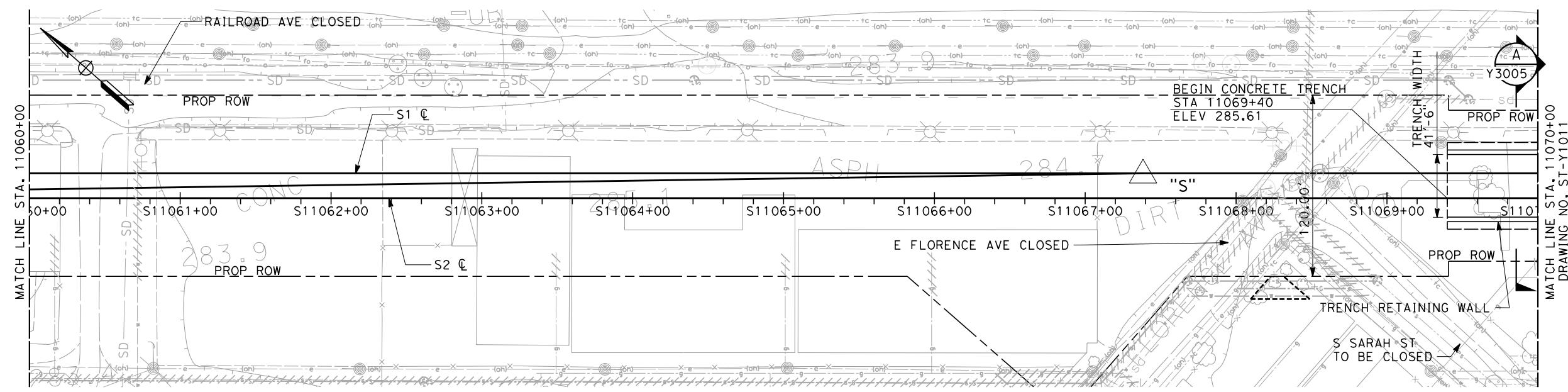
TRENCH SLAB

DATUM ELEV = 200.00 (NGVD 88)

MATCH LINE STA. 11070+00
DRAWING NO. ST-Y1011

11060+00 11065+00 11070+00

ELEVATION



PLAN
SCALE 1" = 40'

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG DRAWN BY F. PALERMO CHECKED BY Q. LIU IN CHARGE R. COFFIN DATE 06/06/12	PROPOSED PRELIMINARY DESIGN NOT FOR CONSTRUCTION	  CALIFORNIA HIGH-SPEED TRAIN	 CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES JENSEN TRENCH PLAN AND ELEVATION	CONTRACT NO. DRAWING NO. ST-Y1010 SCALE AS SHOWN SHEET NO.
REV	DATE	BY	CHK	APP	DESCRIPTION					

BVC 11115+50.70 EVC 11144+50.70
ELEV 280.53 ELEV 301.55

2900' VC R/C= 1.55%
+0.05%/STA

NOTES:

TOP OF RAIL "S" LINE

TOTAL LENGTH OF TRENCH = 6760'-0"

MATCH LINE STA. 11070+00
DRAWING NO. ST-Y1010

MATCH LINE STA. 11080+00
DRAWING NO. ST-Y1012

EXPANSION JOINT (TYP)

APPROX OG
TOP OF RAIL

TRENCH RETAINING WALL

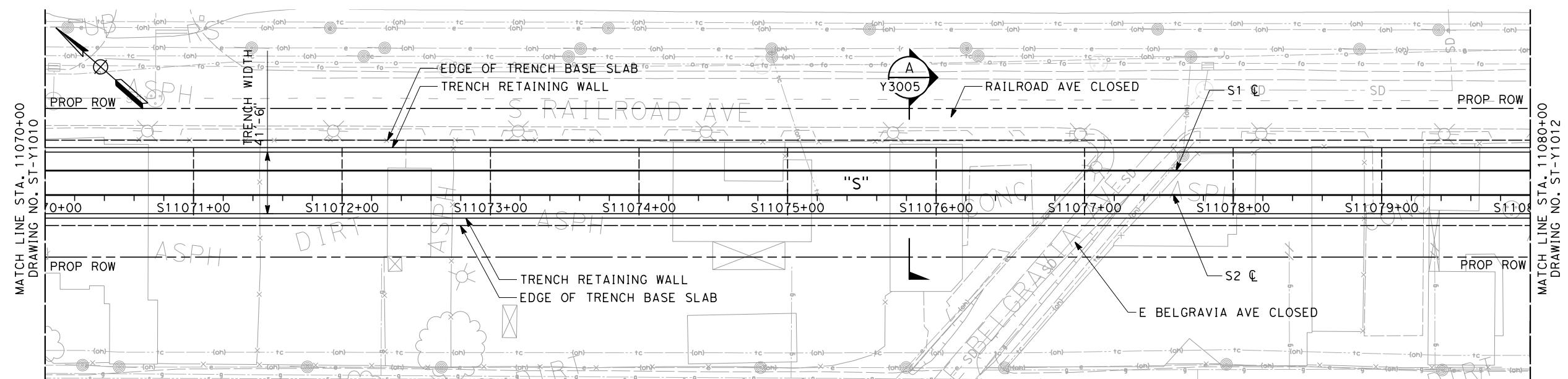
TRENCH SLAB

FUTURE FMFCD STORM DRAIN

DATUM ELEV = 200.00 (NGVD 88)

11070+00 11075+00 11080+00

ELEVATION
SCALE 1" = 40'



PLAN

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN NOT FOR CONSTRUCTION			CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES JENSEN TRENCH PLAN AND ELEVATION					CONTRACT NO.	
					DRAWN BY F. PALERMO										DRAWING NO.	
					CHECKED BY O. LIU										ST-Y1011	
					IN CHARGE R. COFFIN										SCALE	
					DATE 06/06/12										AS SHOWN	
REV	DATE	BY	CHK	APP	DESCRIPTION											SHEET NO.

NOTES:

1. FOR NOTES SEE DRAWING NO.
ST-Y1010

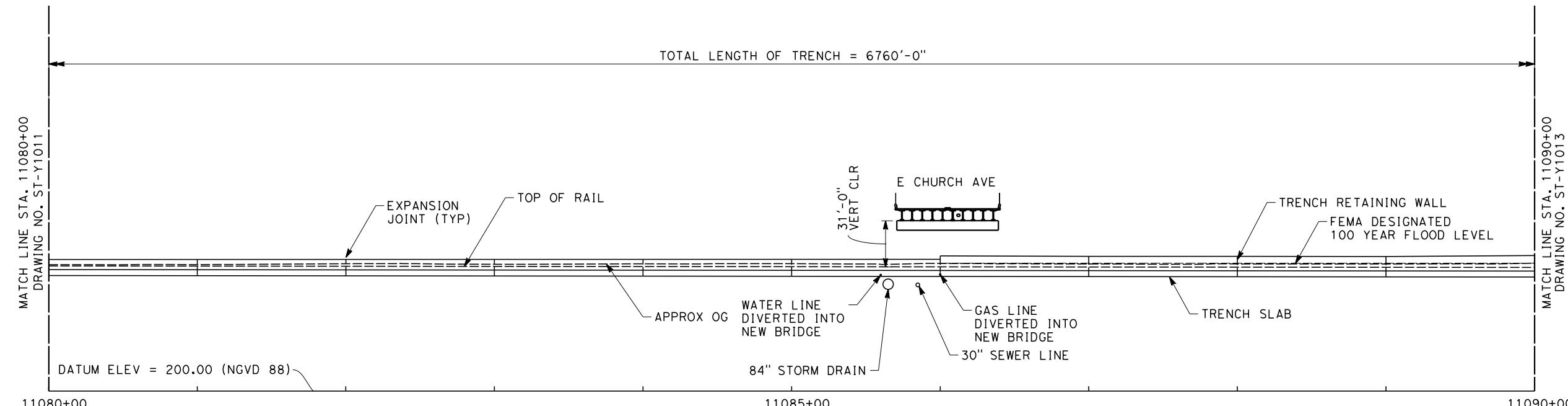
BVC 11115+50.70
ELEV 280.53
-0.10%

EVC 11144+50.70
ELEV 301.55
1.55%

2900' VC R/C =
+0.057%/STA

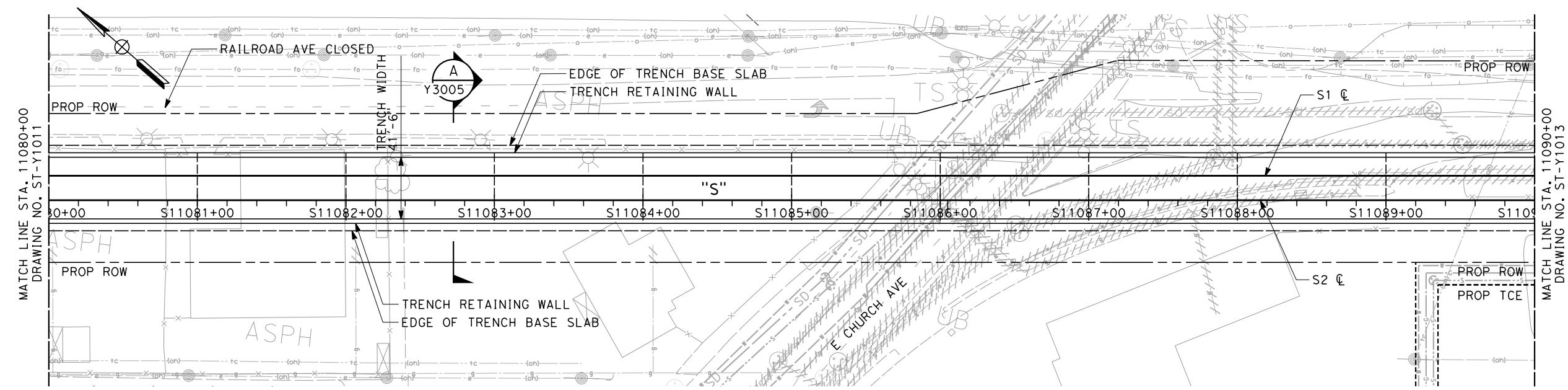
TOP OF RAIL "S" LINE

NO SCALE



ELEVATION

SCALE 1" = 40'



PLAN

SCALE 1" = 40'

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
					DRAWN BY F. PALERMO					DRAWING NO.
					CHECKED BY O. LIU					ST-Y1012
					IN CHARGE R. COFFIN					SCALE
					DATE 06/06/12	NOT FOR CONSTRUCTION				AS SHOWN
REV	DATE	BY	CHK	APP	DESCRIPTION					SHEET NO.

BVC 11115+50.70
ELEV 280.53

EVC 11144+50.70
ELEV 301.55

- 0,10%

NOTES:

TOP OF RAIL "S" LIN

NO SCALI

TOTAL LENGTH OF TRENCH = 6760'-0

MATCH LINE STA. 11090+00
DRAWING NO. CT 1212

EXPANSION JOINT (T)

✓ APPROX

TRENCH RETAINING WALL
FEMA DESIGNATED
100 YEAR FLOOD LEVEL

DATUM ELEV = 200.00 (NGVD 88)

11095+

ELEVATION

This architectural cross-section diagram illustrates a trench excavation project. The top horizontal line represents the ground surface, while the bottom line represents the original grade. A central vertical dashed line marks the center of the excavation. Key features include:

- PROP ROW**: Proprietary rows on both sides.
- RAILROAD AVE CLOSED**: Railroad Avenue is closed during construction.
- EDGE OF TRENCH BASE SLAB**: The outer edge of the base slab.
- TRENCH RETAINING WALL**: Retaining walls on either side of the excavation.
- Y3006** and **Y3005**: Labels near the top center.
- ASPH**: Asphalt paving labels.
- TRENCH WIDTH**: Width of the excavation is 1'-6".
- "S"**: Label indicating a section or area.
- ACCESS STAIRS**: Stairs leading down into the excavation.
- PROP TCE**: Proprietary transition elements.
- PROP ROW**: Proprietary rows at the bottom.
- EDGE OF TRENCH BASE SLAB**: The outer edge of the base slab at the bottom.
- S EAST AVE CLOSED**: S East Avenue is closed.

The diagram also includes a scale bar at the bottom left and various structural details like columns and beams.

A horizontal scale bar with tick marks at 40', 0', 40', and 80'. The text "1''=40'" is written below the scale, and "SCALE APPLICABLE FOR FULL SIZE ONLY" is written below that.

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN NOT FOR CONSTRUCTION			CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES JENSEN TRENCH PLAN AND ELEVATION					CONTRACT NO.	
					DRAWN BY F. PALERMO										DRAWING NO.	
					CHECKED BY O. LIU										ST-Y1013	
					IN CHARGE R. COFFIN										SCALE	
					DATE 06/06/12										AS SHOWN	
REV	DATE	BY	CHK	APP	DESCRIPTION											SHEET NO.

BVC 11115+50.70 EVC 11144+50.70
 ELEV 280.53 ELEV 301.55

2900' VC R/C= +0.05%/STA 1.55%

NOTES:

TOP OF RAIL "S" LINE

TOTAL LENGTH OF TRENCH = 6760'-0"

MATCH LINE STA. 11100+00
DRAWING NO. ST-Y1013

MATCH LINE STA. 11110+00
DRAWING NO. ST-Y1015

EXPANSION JOINT (TYP)

TRENCH RETAINING WALL

FEMA DESIGNATED
100 YEAR FLOOD LEVEL

APPROX OG

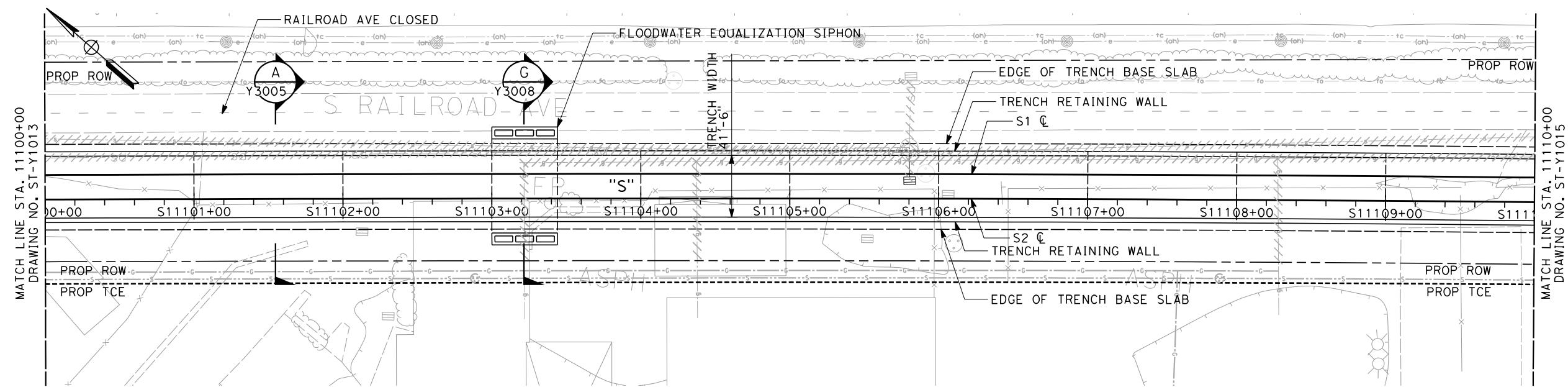
TRENCH SLAB

TOP OF RAIL

DATUM ELEV = 200.00 (NGVD 88)

11100+00 11105+00 11110+00

ELEVATION
SCALE 1" = 4'



A horizontal scale bar with tick marks at 40', 0', 40', and 80'. The text "I''=40'" is written below the scale, and "SCALE APPLICABLE FOR FULL SIZE ONLY" is written below that.

PLAN

SCALE 1" = 40'



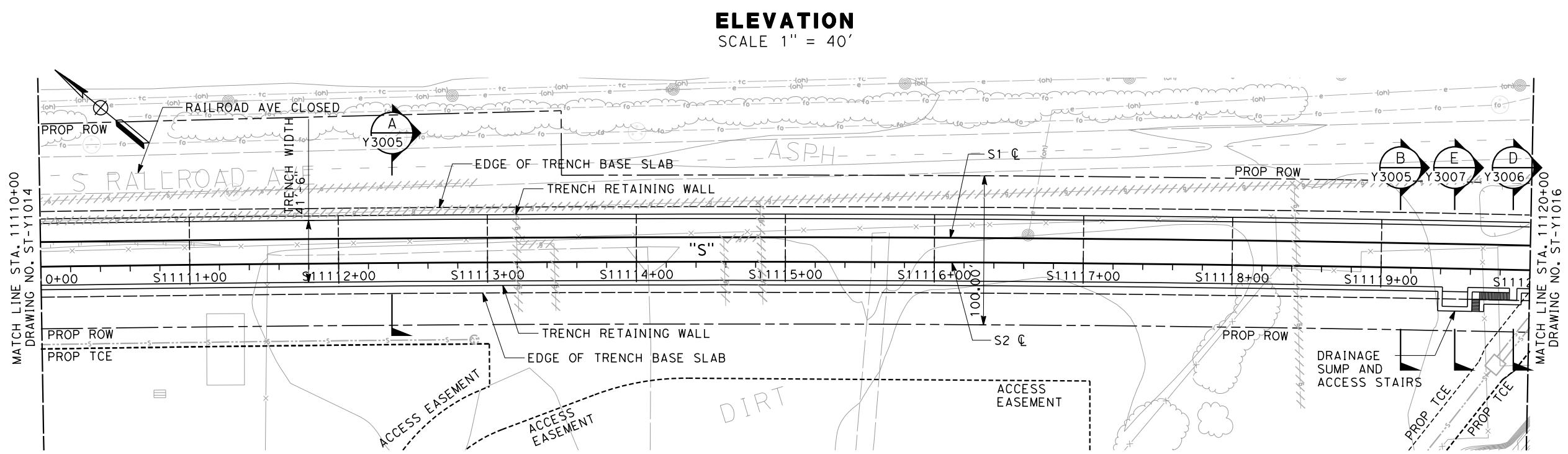
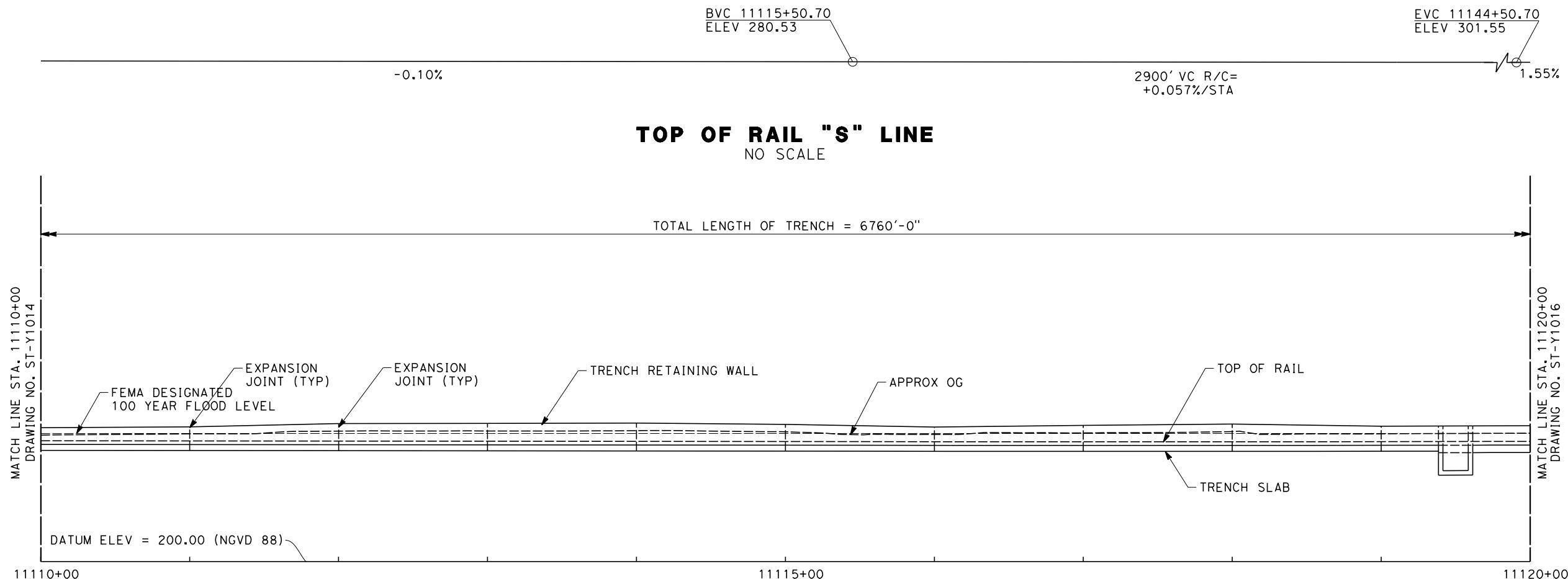
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
TRACK STRUCTURES
JENSEN TRENCH
PLAN AND ELEVATION

**PROPOSED
PRELIMINARY
DESIGN**

**NOT FOR
CONSTRUCTION**

CONTRACT NO.
DRAWING NO. ST-Y1014
SCALE AS SHOWN
SHEET NO.



NOTES:

1. FOR NOTES SEE DRAWING NO.
ST-Y1010

CONTRACT NO.
DRAWING NO.
ST-Y1015
SCALE
AS SHOWN
SHEET NO.

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	PACKAGE 1C TRACK STRUCTURES JENSEN TRENCH PLAN AND ELEVATION
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY
CHECKED BY O. LIU			
IN CHARGE R. COFFIN			
DATE 06/06/12			
REV DATE BY CHK APP	DESCRIPTION		

CAHSPR-r1.tbl PDF_half_black_2000pi.pdf\global\americas\Jobs\N-F\131000\131577\4 Internal Project Data\4-03-03-05 Drawings\4-03-03-05 Design Sheets\Structure

BVC 11115+50.7
ELEV 280.53

-0.10%

2900' VC R/C= +0.057%/ST

EVC 11144+50.70
ELEV 301.55
1.55%

TOP OF RAIL "S" LINE

NOTES:

TOTAL LENGTH OF TRENCH = 6760'-0"

**MATCH LINE STA. 11120+00
DRAWING NO. ST-Y1015**

**MATCH LINE STA. 11130+00
DRAWING NO. ST-Y1017**

E JENSEN BYPASS (EXISTING ROADWAY)

EXPANSION JOINT (TYP)

TRENCH RETAINING WALL

TOP OF RAIL

MIN VERT CLR 24'-0"

48" SEWER LINE DIVERTED INTO TWIN PIPES

FUTURE STORM DRAIN (NIC)

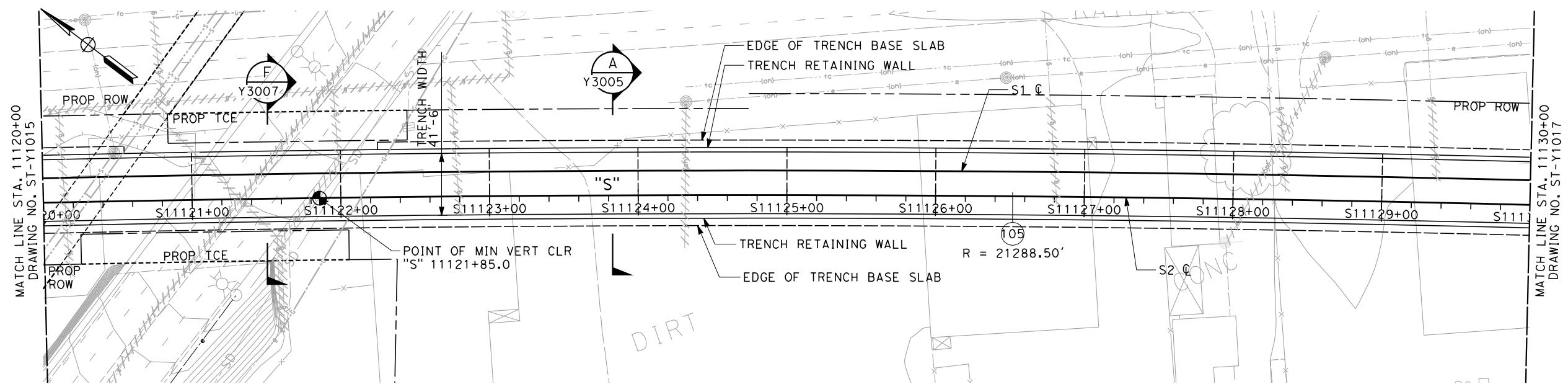
APPROX OG

TRENCH SLAB

DATUM ELEV = 200.00 (NGVD 88)

11120+00 11125+00 11130+00

ELEVATION
SCALE 1" = 40'



PLAN

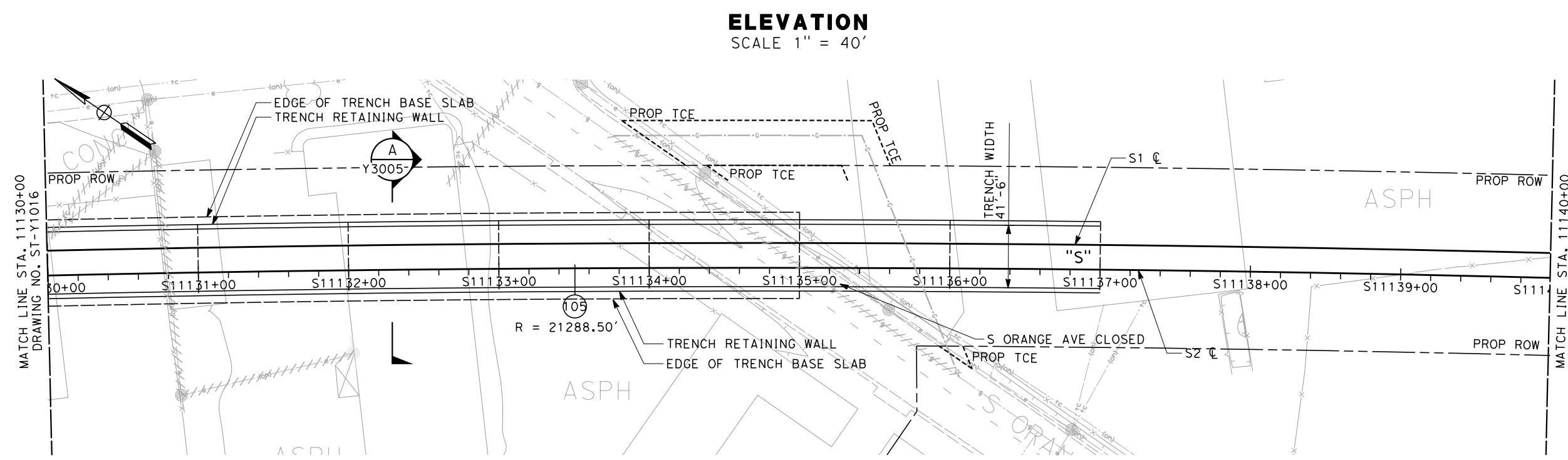
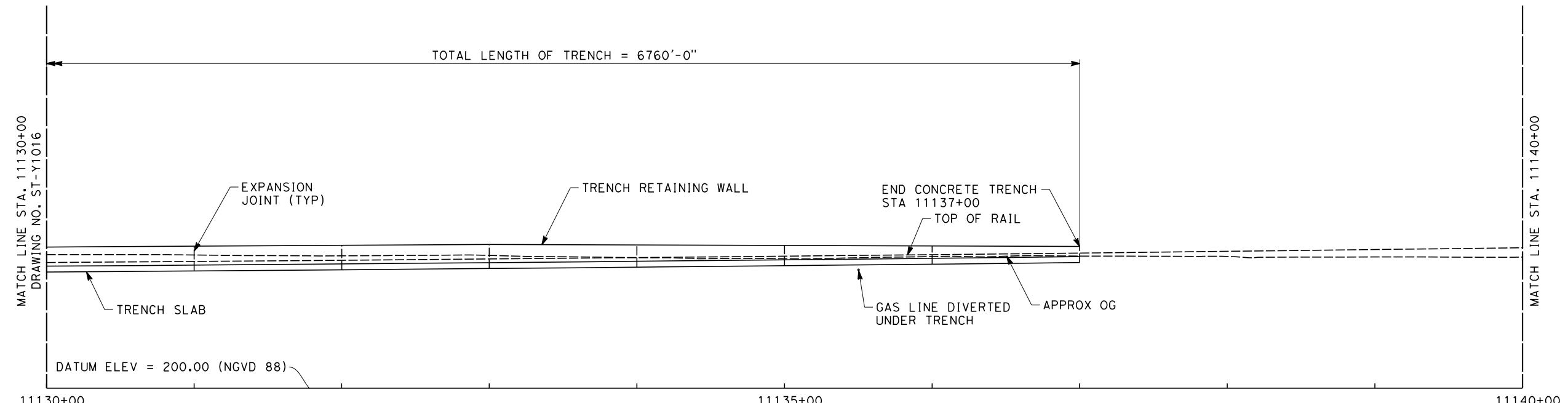
ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES JENSEN TRENCH PLAN AND ELEVATION	CONTRACT NO. DRAWING NO. ST-Y1016 SCALE AS SHOWN SHEET NO.
					DRAWN BY F. PALERMO					
					CHECKED BY Q. LIU					
					IN CHARGE R. COFFIN					
					DATE 06/06/12					
REV	DATE	BY	CHK	APP	DESCRIPTION					

BVC 11115+50.70 ELEV 280.53 -0.10% 2900' VC R/C = +0.057%/STA EVC 11144+50.70 ELEV 301.55 1.55%

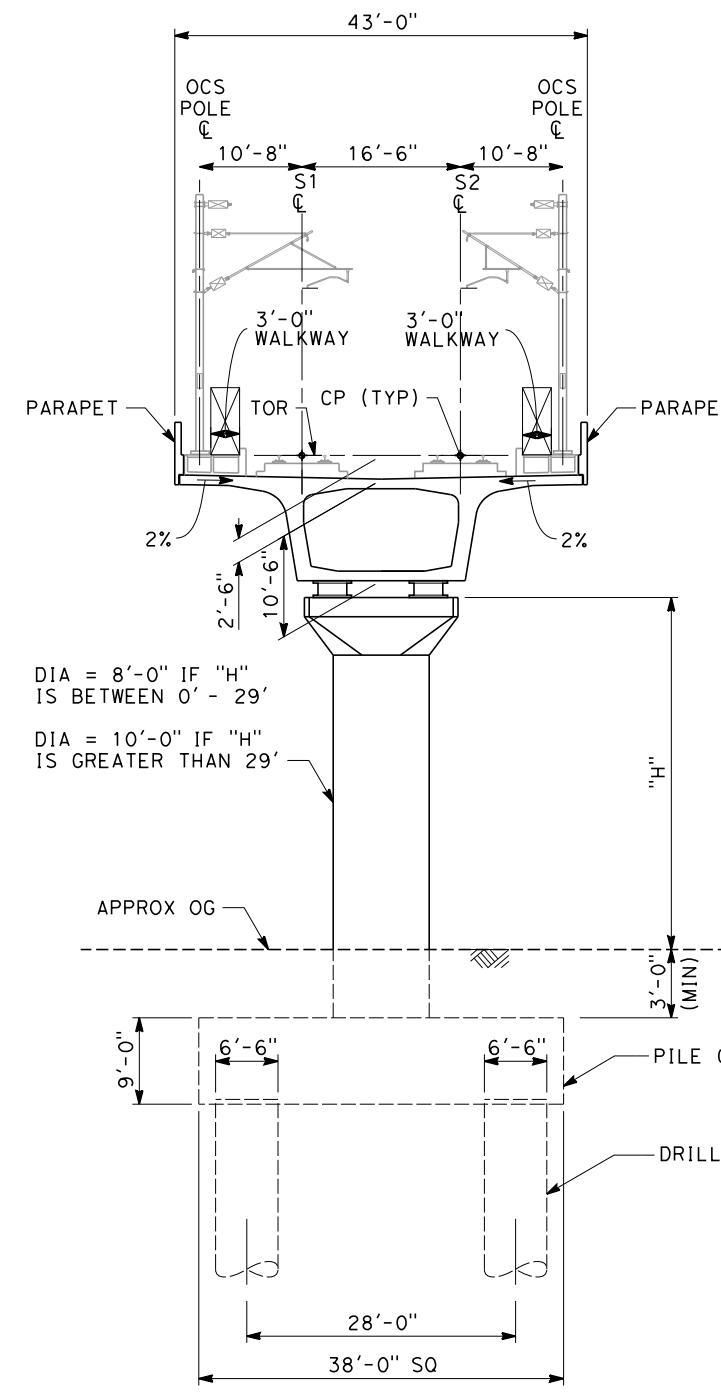
NOTES:
1. FOR NOTES SEE DRAWING NO.
ST-Y1010

TOP OF RAIL "S" LINE NO SCALE

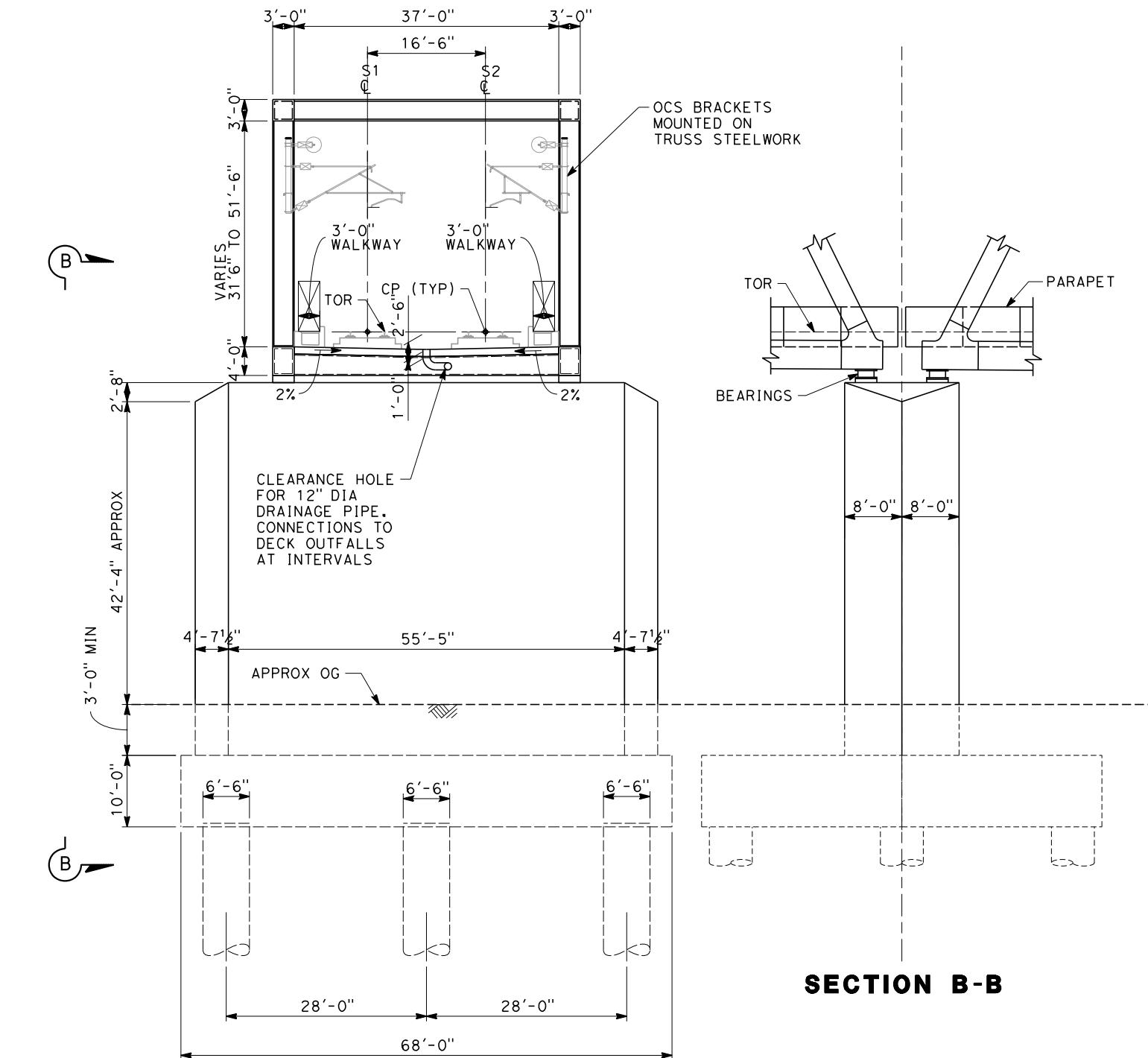


ADDENDUM 3 - RFP HSR 11-16

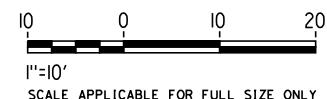
DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.		
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION			DRAWING NO. ST-Y1017		
CHECKED BY O. LIU				SCALE AS SHOWN		
IN CHARGE R. COFFIN				SHEET NO.		
DATE 06/06/12						
REV	DATE	BY	CHK	APP	DESCRIPTION	CONTRACT NO.

**SECTION A**

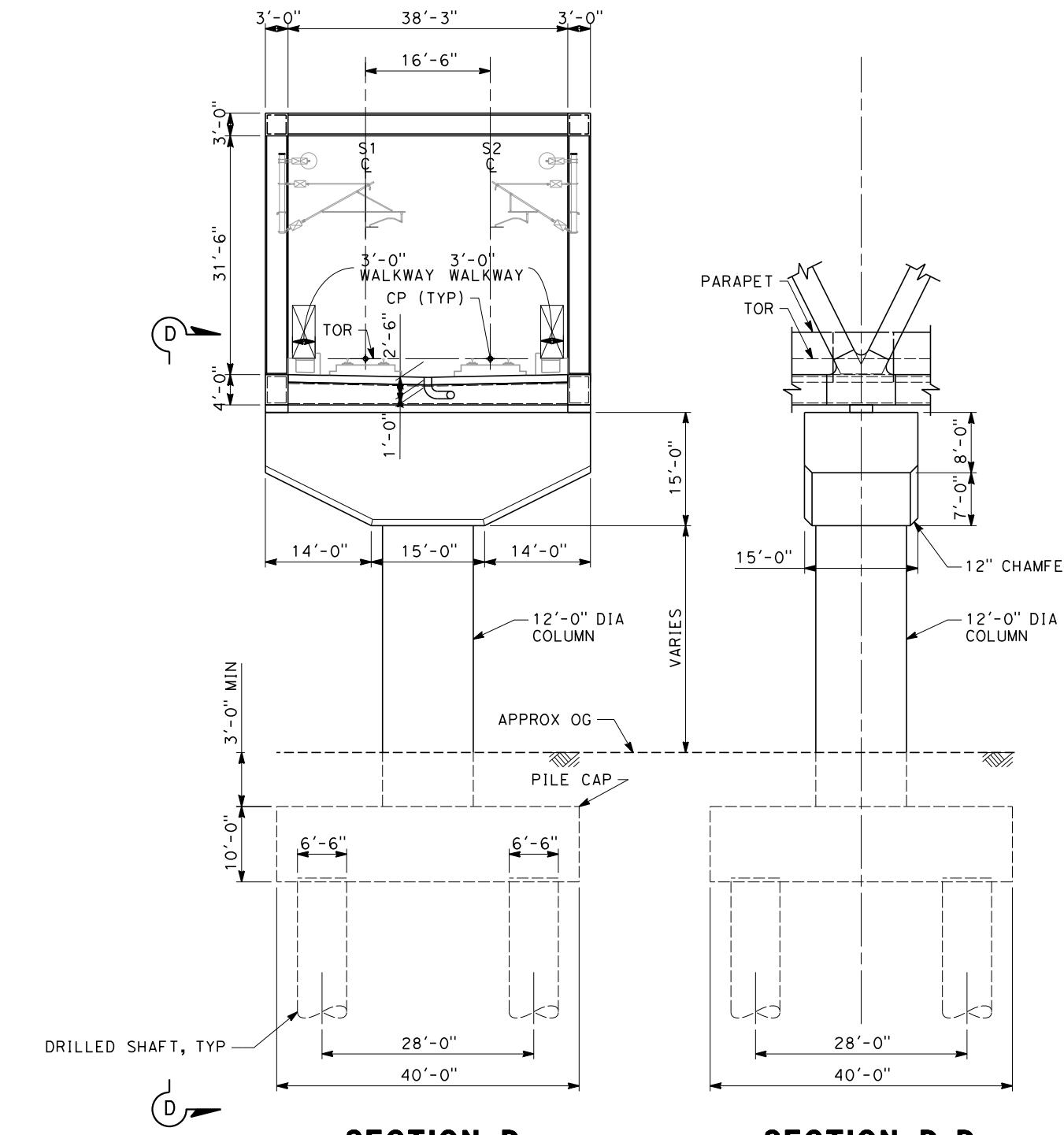
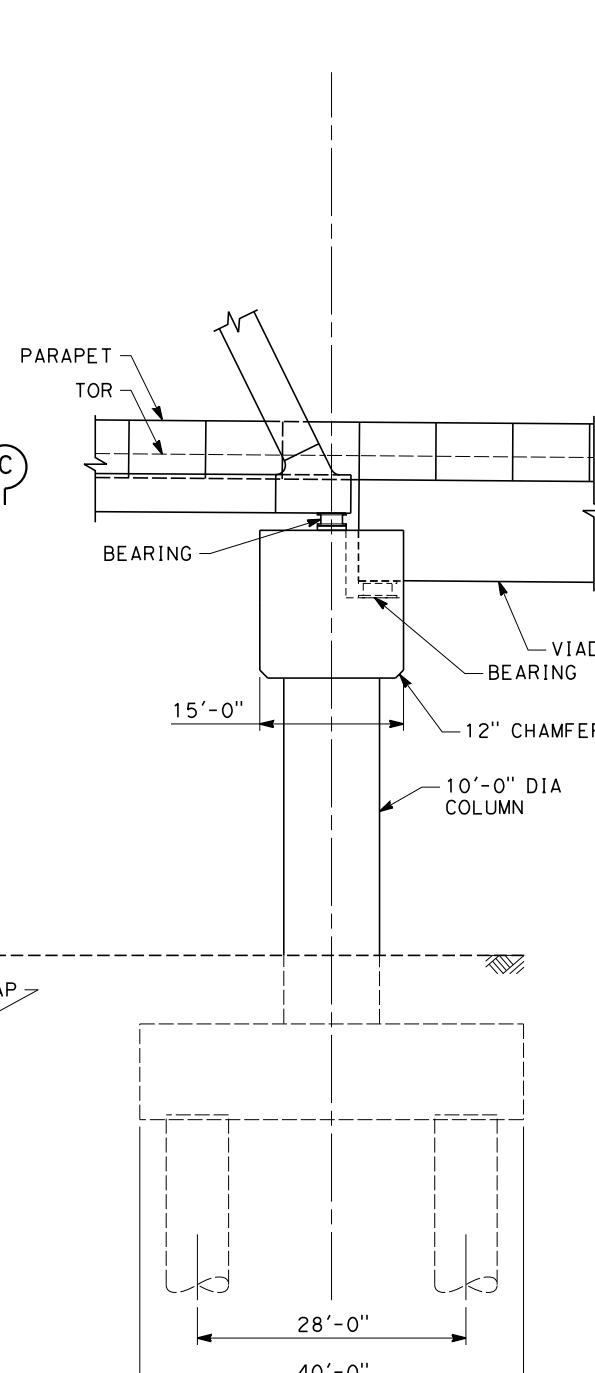
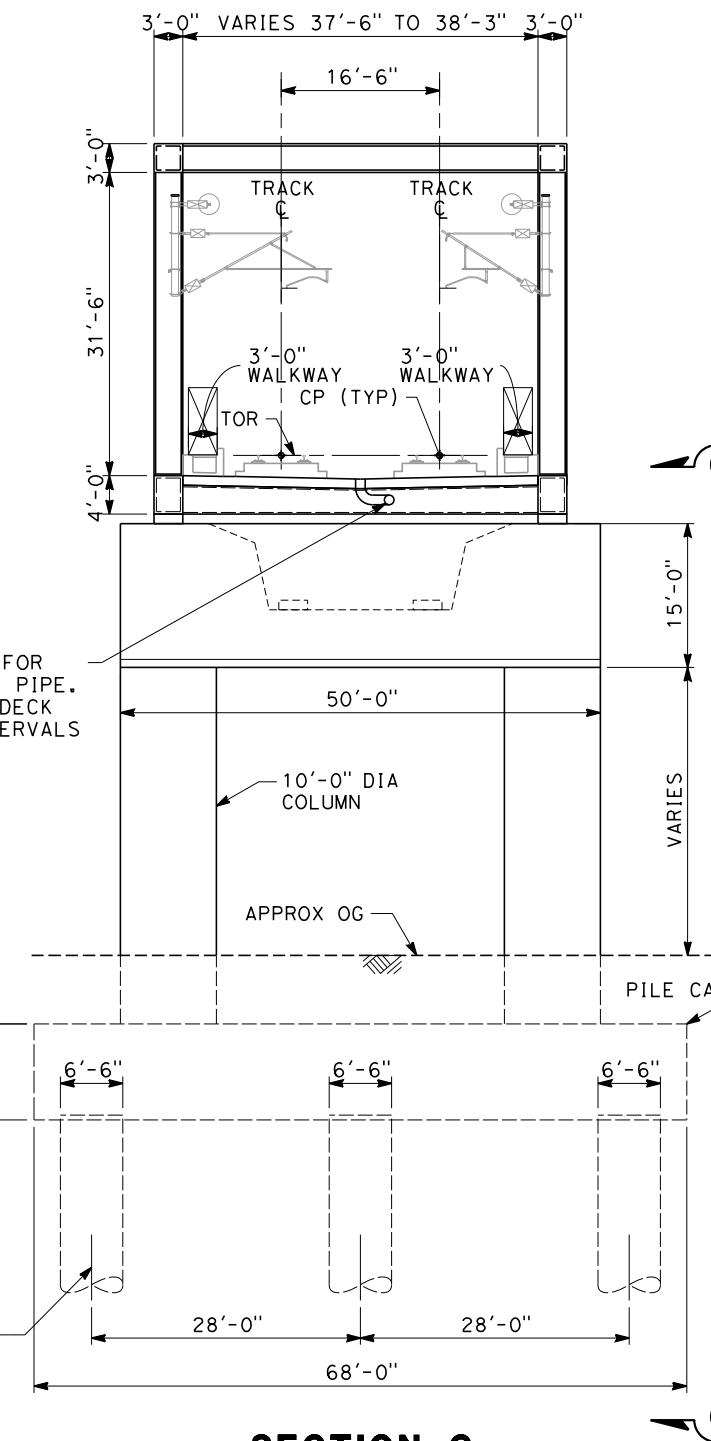
"S" 11155+40 THROUGH 11191+50
"S" 11200+05 THROUGH 11216+00

**SECTION B**

"S" 11195+00

**ADDENDUM 3 - RFP HSR 11-16**

CONTRACT NO.
ST-J3008
DRAWING NO.
AS SHOWN
SCALE
SHEET NO.
DESIGNED BY A. ARMSTRONG
DRAWN BY F. PALERMO
CHECKED BY O. LIU
IN CHARGE R. COFFIN
DATE 06/06/12
PROPOSED PRELIMINARY DESIGN
NOT FOR CONSTRUCTION
URS HMM ARUP
CALIFORNIA HIGH-SPEED RAIL AUTHORITY
CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION
PACKAGE 1C TRACK STRUCTURES FRESNO VIADUCT TYPICAL SECTIONS



10 0 10 20
1' = 10'
SCALE APPLICABLE FOR FULL SIZE ONLY

ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION

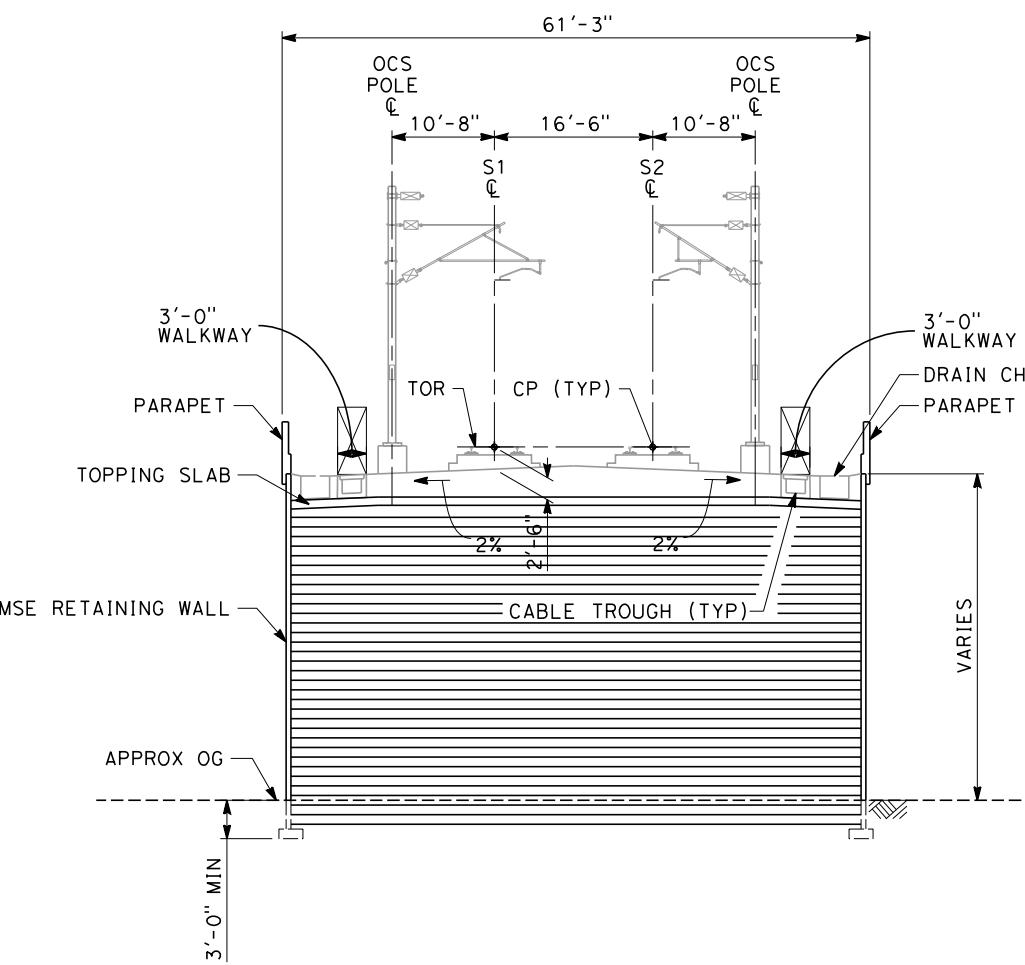
DESIGNED BY
A. ARMSTRONG
DRAWN BY
F. PALERMO
CHECKED BY
O. LIU
IN CHARGE
R. COFFIN
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
**NOT FOR
CONSTRUCTION**



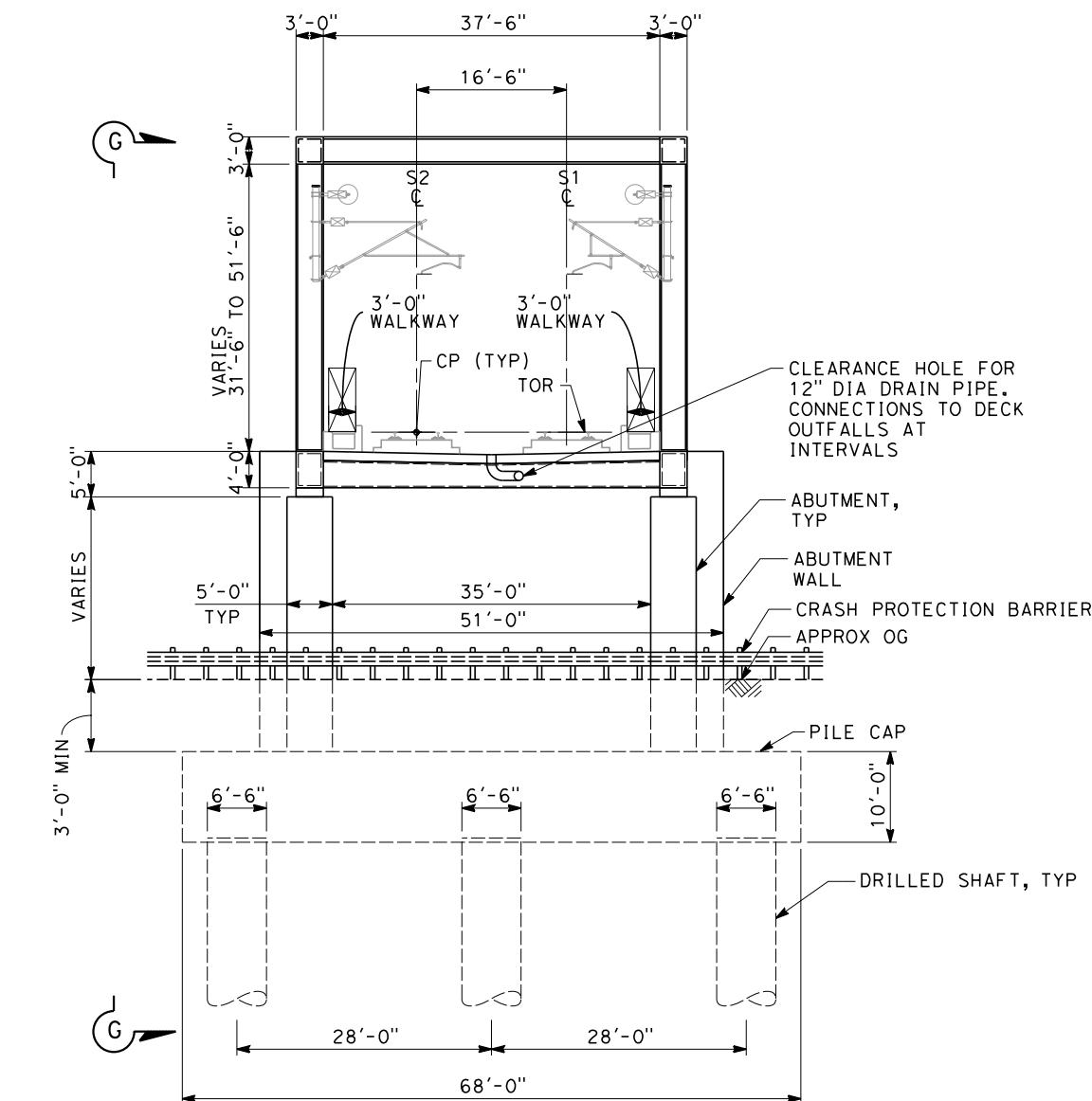
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
TRACK STRUCTURES
FRESNO VIADUCT
TYPICAL SECTIONS

CONTRACT NO.
DRAWING NO.
ST-J3009
SCALE
AS SHOWN
SHEET NO.



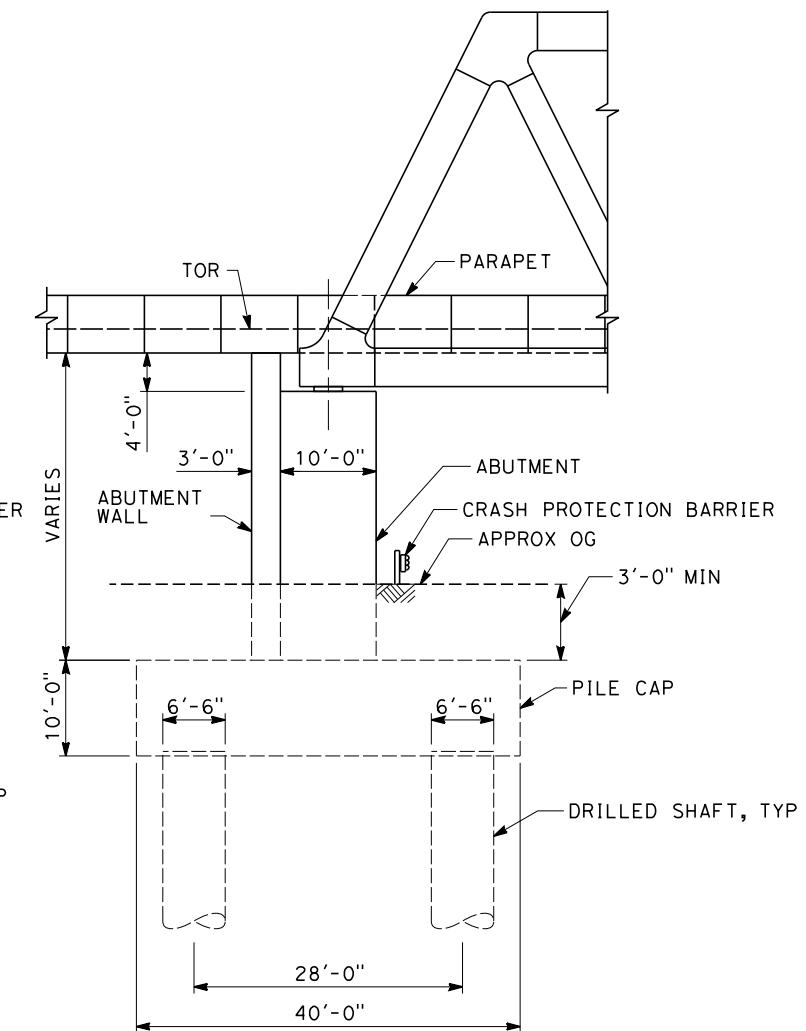
SECTION E

STA 11144+50 THROUGH 11152+20
STA 11216+00 THROUGH 11230+00



SECTION F

STA 11152+20
(ABUTMENT 1)



SECTION G-G

10 0 10 20
1'=10'
SCALE APPLICABLE FOR FULL SIZE ONLY

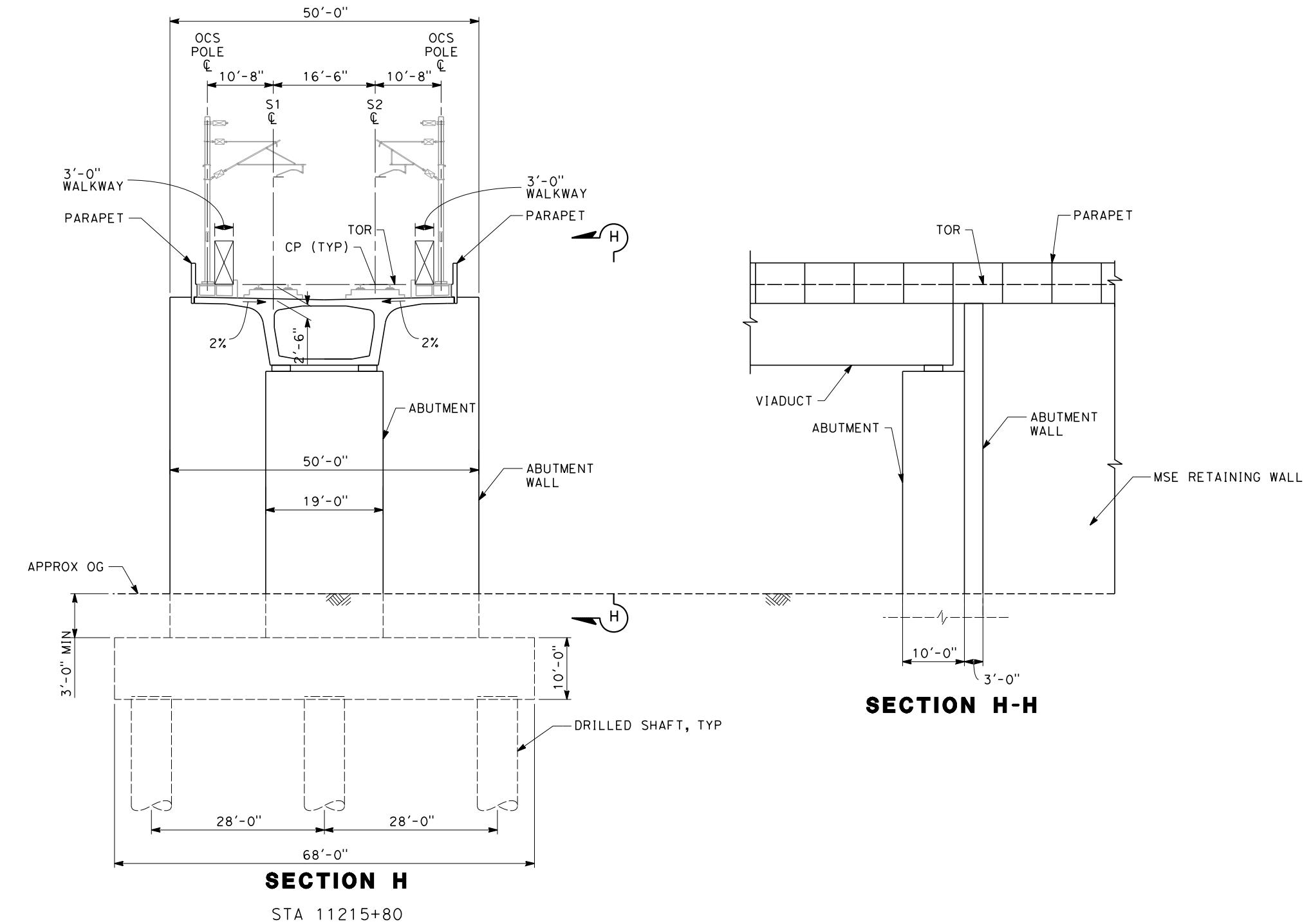
ADDENDUM 4 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG
					DRAWN BY F. PALERMO
					CHECKED BY O. LIU
					IN CHARGE R. COFFIN
A	07/16/12	FP	AA	RC	DATE 07/16/12
SECTION E EXTENT CHANGED					DESCRIPTION
REV	DATE	BY	CHK	APP	



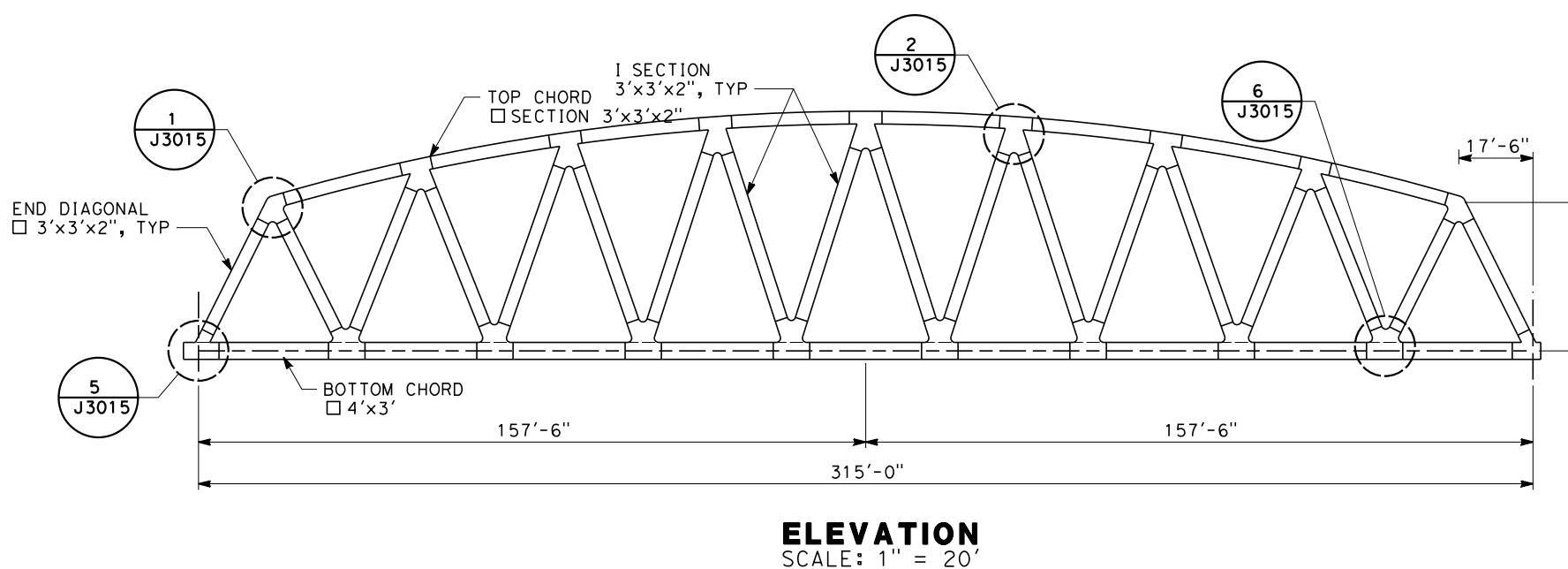
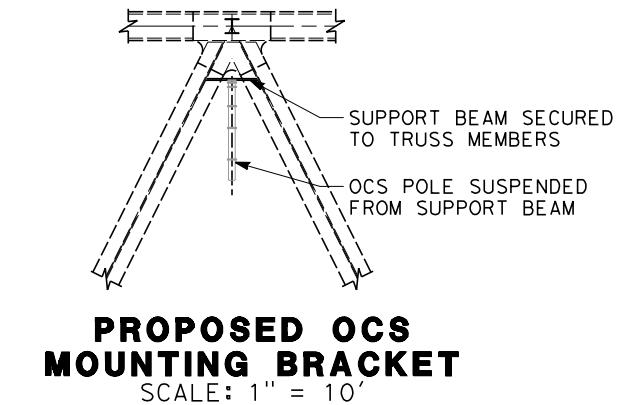
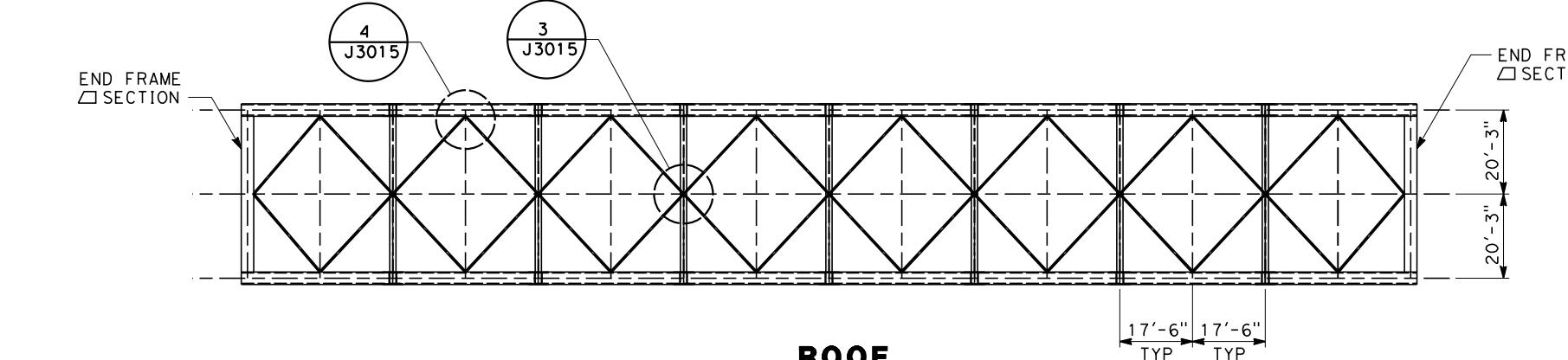
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
TRACK STRUCTURES
FRESNO VIADUCT
TYPICAL SECTIONS

CONTRACT NO.	
DRAWING NO.	ST-J3010-A4
SCALE	AS SHOWN
SHEET NO.	



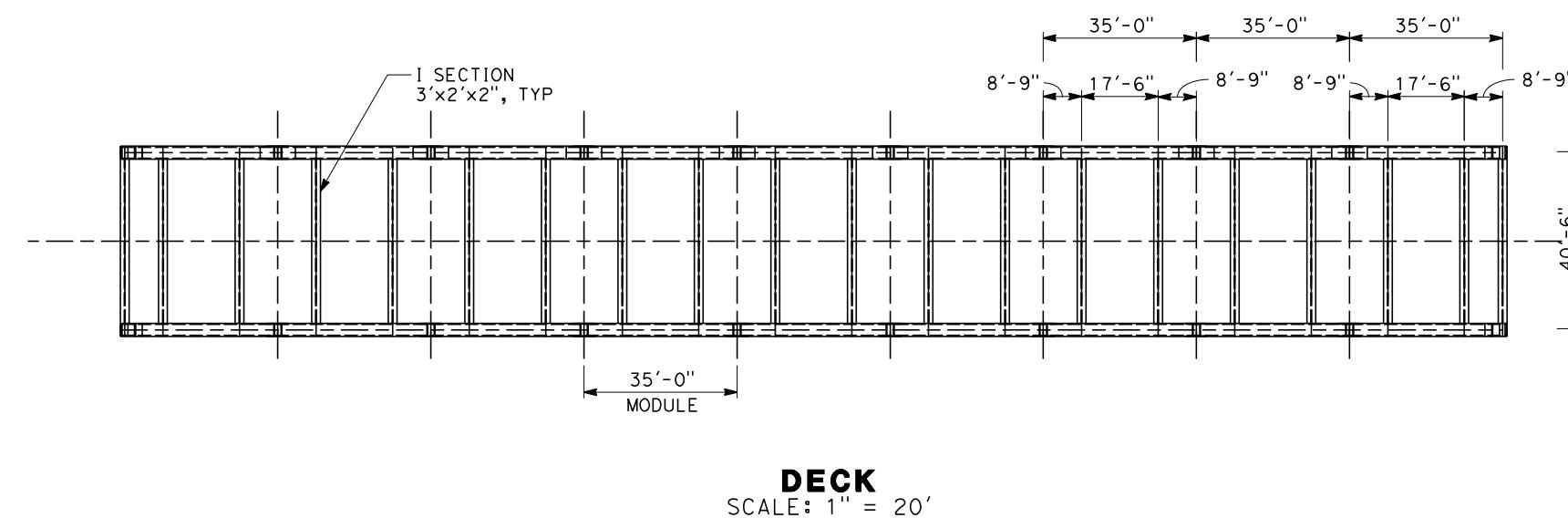
ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.					
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION	CALIFORNIA HIGH-SPEED TRAIN		DRAWING NO.					
CHECKED BY O. LIU				SCALE					
IN CHARGE R. COFFIN				AS SHOWN					
DATE 06/06/12				SHEET NO.					
REV	DATE	BY	CHK	APP	DESCRIPTION				



NOTES:

ALL SECTIONS EXCEPT TOP CORD BRACING ARE BUILT UP FROM PLATE STEEL. IT IS ASSUMED (SUBJECT TO DETAILED DESIGN) THAT THE SECTIONS CAN BE FABRICATED USING PARTIAL PENETRATION FILLET WELDS IN ALL AREAS WHERE THE SECTION IS SUBJECT TO PREDOMINANTLY AXIAL FORCES.

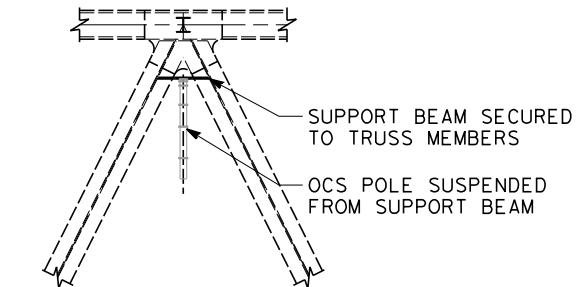
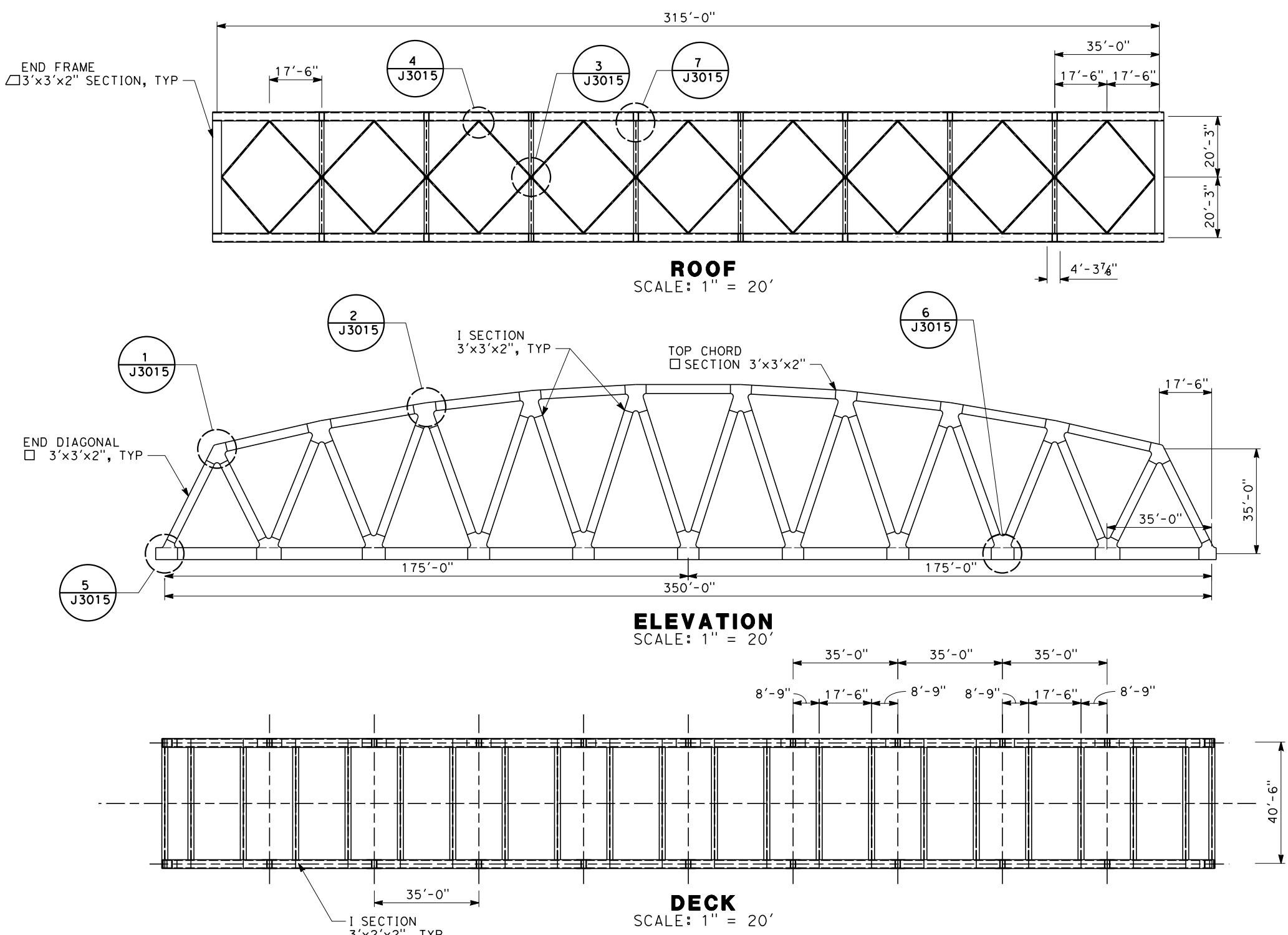


10 0 10 20 20 0 20 40
1"=10' 1"=20'
SCALE APPLICABLE FOR FULL SIZE ONLY

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION	CALIFORNIA HIGH-SPEED TRAIN	DRAWING NO. ST-J3012
CHECKED BY O. LIU			SCALE
IN CHARGE R. COFFIN			AS SHOWN
DATE 06/06/12			SHEET NO.
REV	DATE	BY	CHK APP
DESCRIPTION			

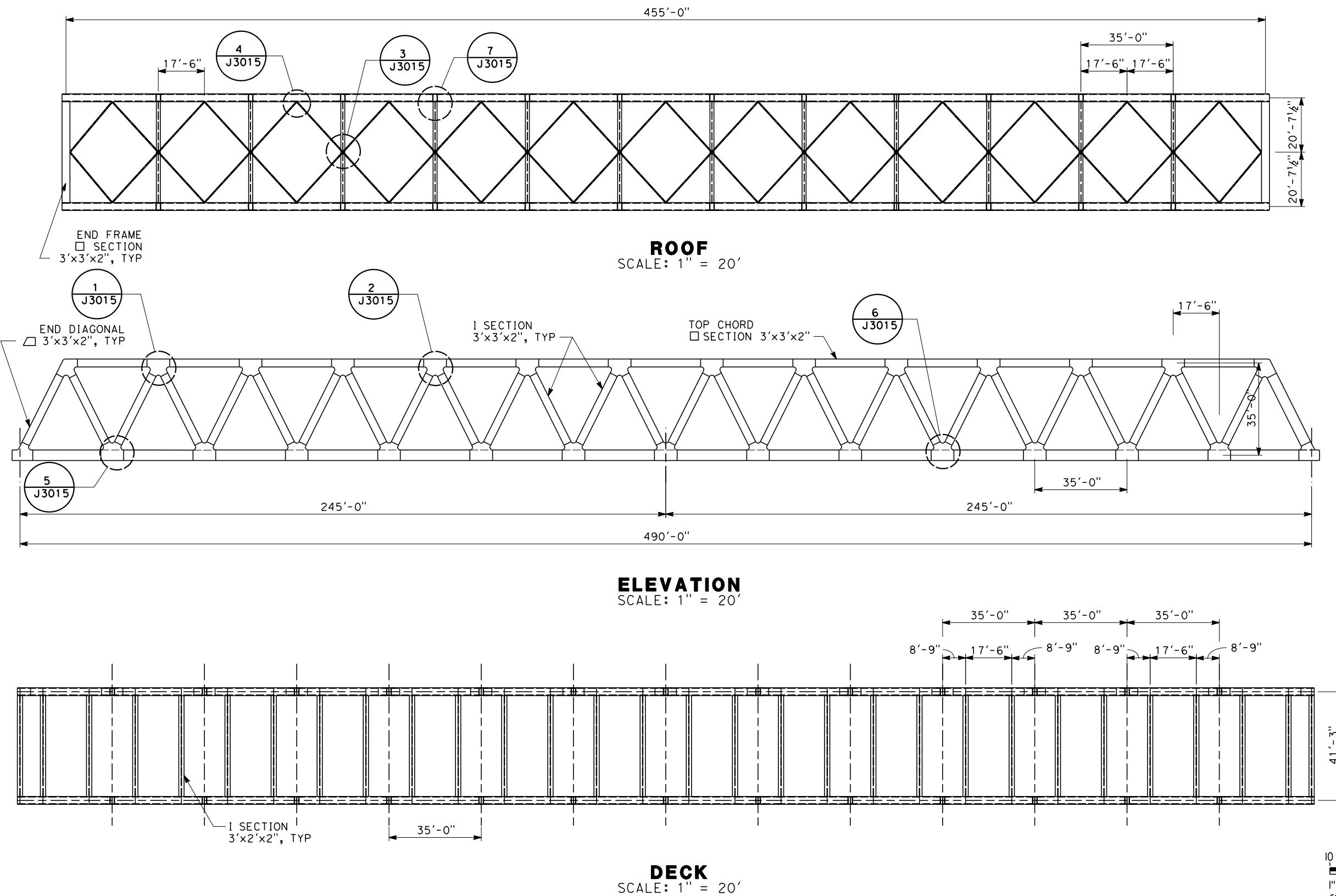
ADDENDUM 3 - RFP HSR 11-16

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
FRESNO VIADUCT
GOLDEN STATE BLVD BRIDGE
GENERAL ARRANGEMENT



ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.					
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION			DRAWING NO. ST-J3013					
CHECKED BY O. LIU				SCALE AS SHOWN					
IN CHARGE R. COFFIN				SHEET NO.					
DATE 06/06/12									
REV	DATE	BY	CHK	APP	DESCRIPTION				



The diagram illustrates a structural setup for an Optical Carrier Subsystem (OCS) pole. At the top, a horizontal dashed line represents a truss member. A vertical dashed line extends downwards from the center of the truss. This vertical line is labeled "SUPPORT BEAM SECURED TO TRUSS MEMBERS". From the midpoint of this support beam, two diagonal dashed lines extend downwards and outwards at approximately a 45-degree angle, forming the legs of a triangle. These legs are labeled "OCS POLE SUSPENDED FROM SUPPORT BEAM". The bottom of the triangle is represented by a solid black line.

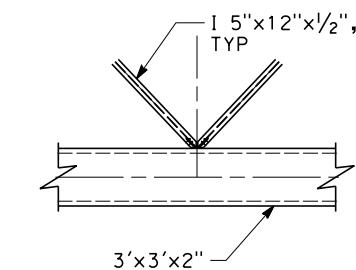
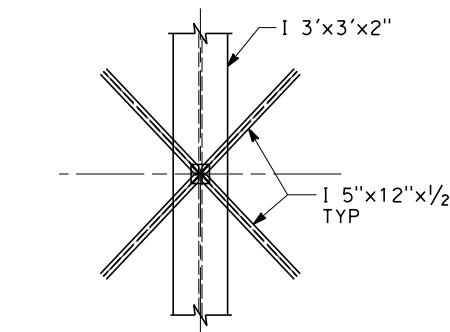
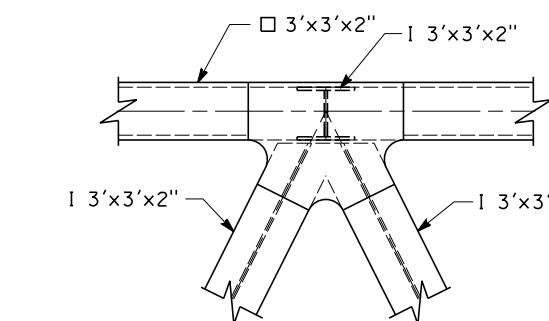
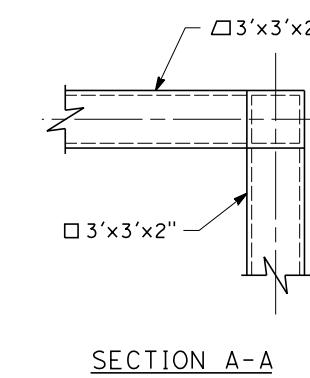
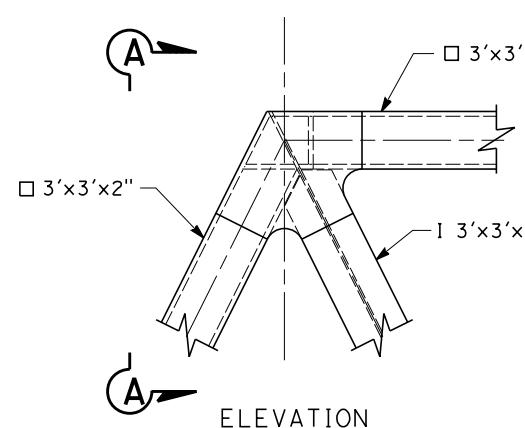
PROPOSED OCS MOUNTING BRACKET

SCALE: 1" = 10'

NOTES.

ALL SECTIONS EXCEPT TOP CORD BRACING
ARE BUILT UP FROM PLATE STEEL. IT IS
ASSUMED (SUBJECT TO DETAILED DESIGN)
THAT THE SECTIONS CAN BE FABRICATED
USING PARTIAL PENETRATION FILLET WELDS
IN ALL AREAS WHERE THE SECTION IS
SUBJECT TO PREDOMINANTLY AXIAL FORCES

ADDENDUM 3 - RFP HSR 11-16

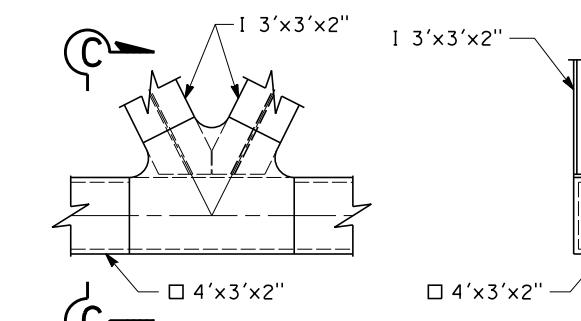
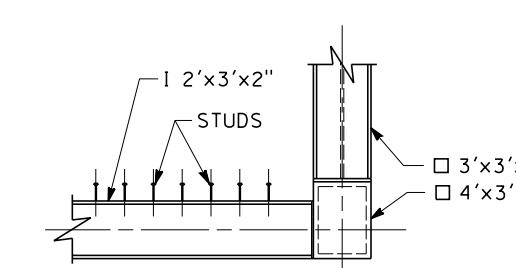
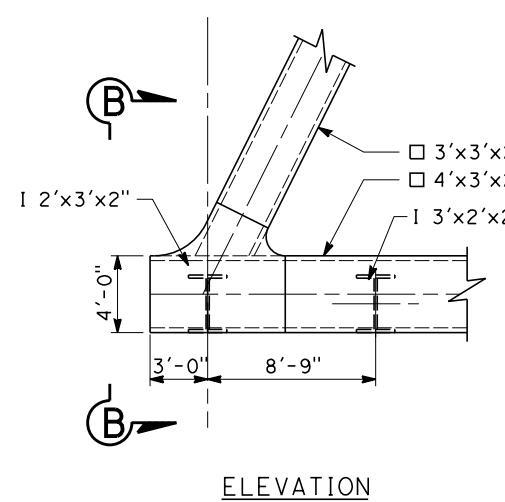


DETAIL 1
SCALE: 1" = 5'

DETAIL 2
SCALE: 1" = 5'

DETAIL 3
SCALE: 1" = 5'

DETAIL 4
SCALE: 1" = 5'



DETAIL 5
SCALE: 1" = 5'

DETAIL 6
SCALE: 1" = 5'

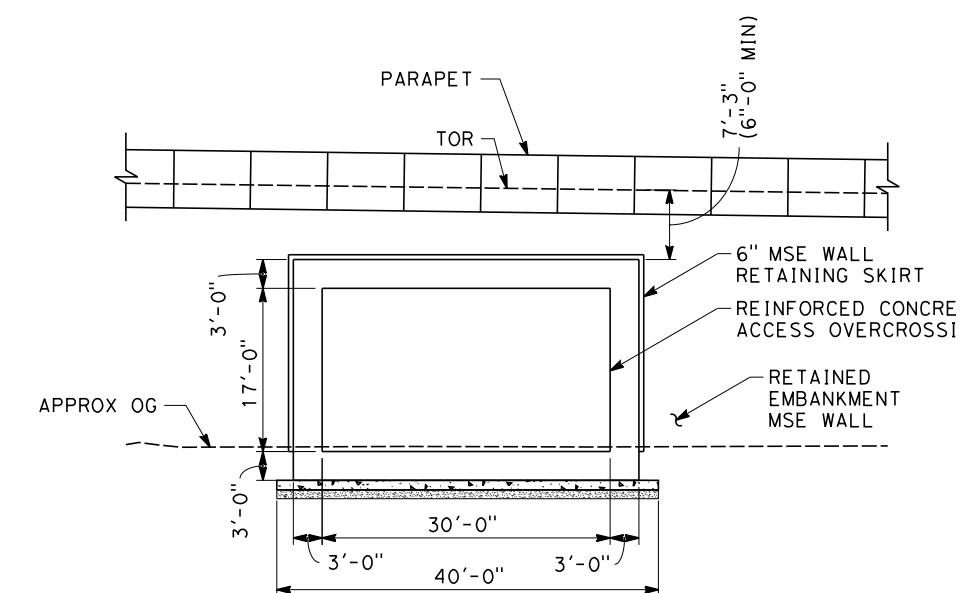
5 0 5 10
1"=5
SCALE APPLICABLE FOR FULL SIZE ONLY

CONTRACT NO.
ST-J3015
DRAWING NO.
AS SHOWN
SCALE
SHEET NO.
CAHSRP-r1.tfb1 PDF_half_black_200dpi.pdf\global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03 Drawings\4-03-03 30% Design\4-03-03 30% Design Sheets\Structural
URS HMM ARUP
CALIFORNIA HIGH-SPEED RAIL AUTHORITY
ADDENDUM 3 - RFP HSR 11-16
CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION
PACKAGE 1C FRESNO VIADUCT TRUSS STEELWORK TYPICAL DETAILS

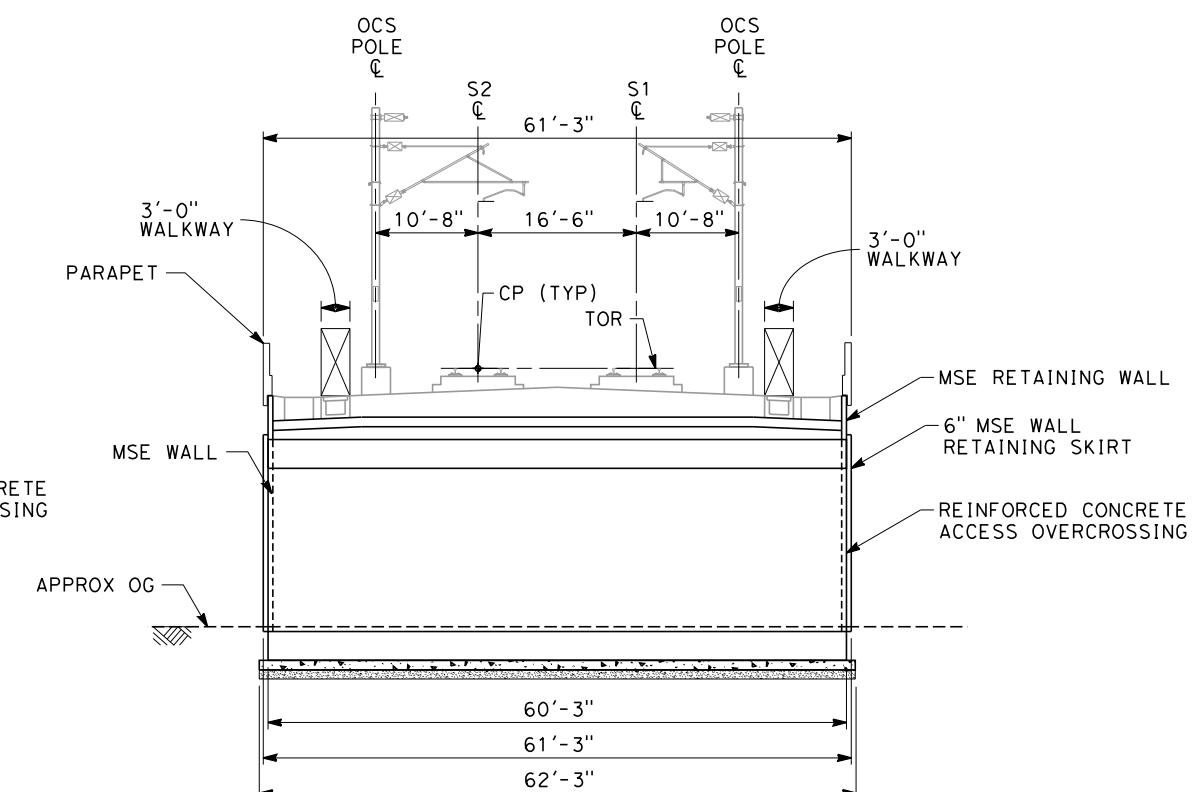
REV	DATE	BY	CHK	APP	DESCRIPTION
					06/06/12

PROPOSED
PRELIMINARY
DESIGN
**NOT FOR
CONSTRUCTION**





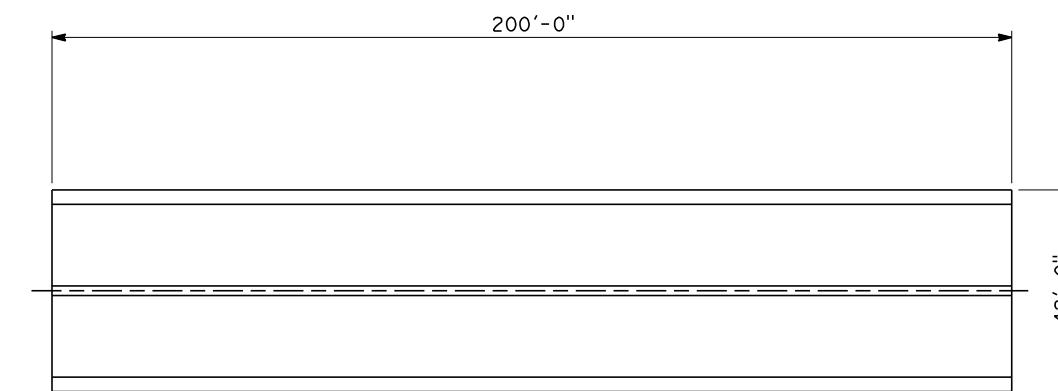
SECTION





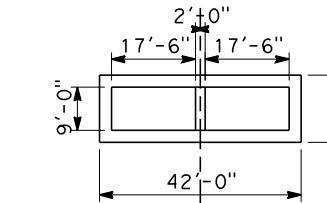
 SCALE APPLICABLE FOR FULL SIZE ONLY

ADDENDUM 3 - RFP HSR 11-16



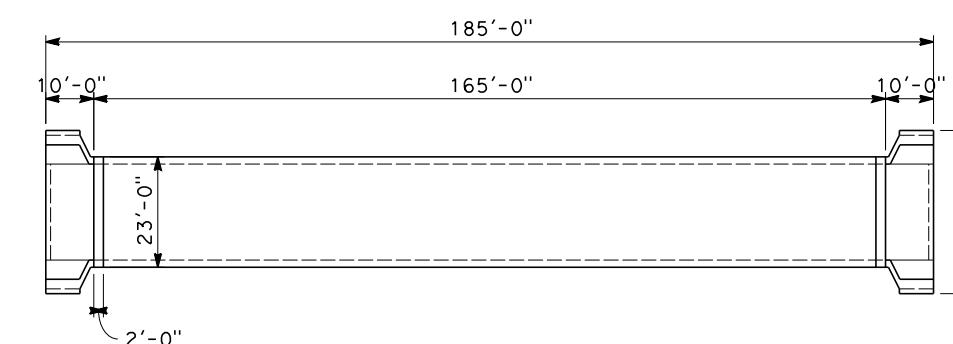
**CENTRAL CANAL
CULVERT PLAN**

SCALE: 1" = 20'



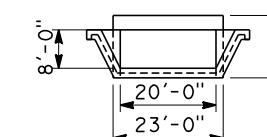
**CENTRAL CANAL
CULVERT ELEVATION**

SCALE: 1" = 20'



**VIAU CANAL
CULVERT PLAN**

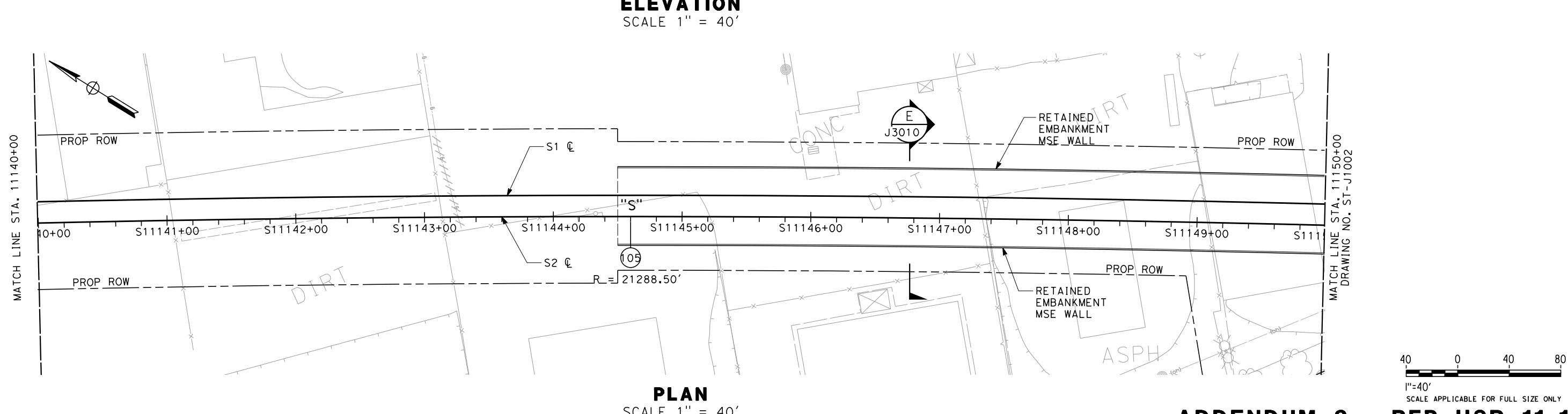
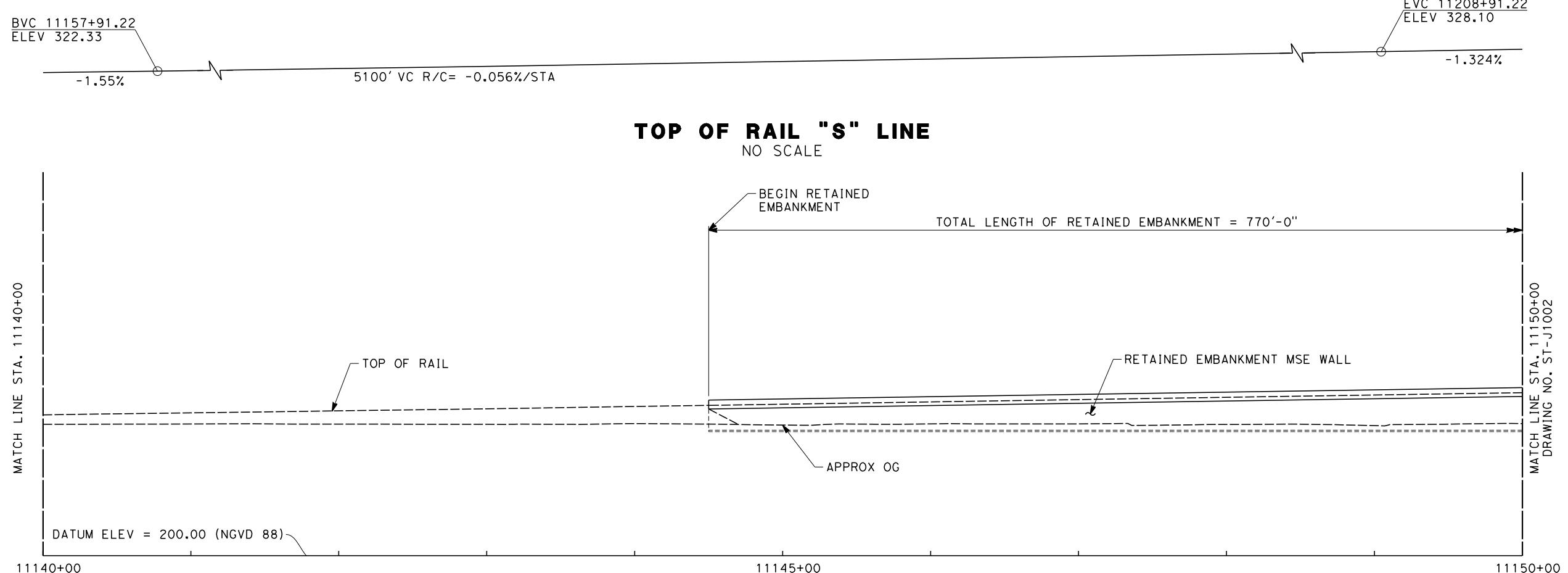
SCALE: 1" = 20'



**VIAU CANAL
CULVERT ELEVATION**

SCALE: 1" = 20'

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES TYPICAL SECTIONS CANAL CULVERTS	CONTRACT NO.
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION				DRAWING NO. ST-J3017
CHECKED BY Q. LIU					SCALE AS SHOWN
IN CHARGE R. COFFIN					SHEET NO.
DATE 06/06/12					
REV	DATE	BY	CHK	APP	DESCRIPTION



ADDENDUM 3 - RFP HSR 11-16

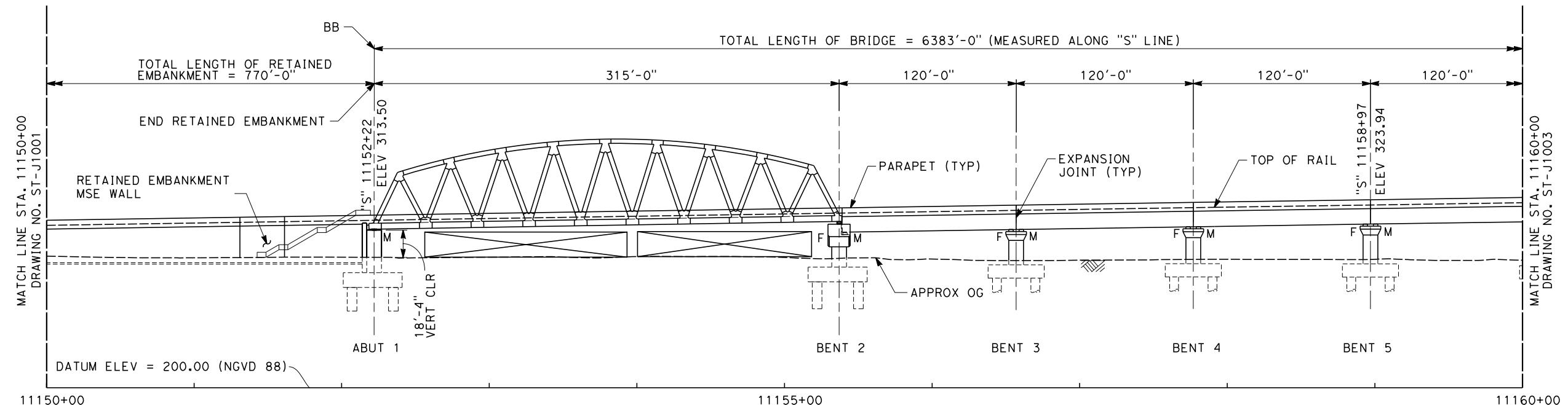
DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY F. PALERMO			DRAWING NO.
CHECKED BY O. LIU			ST-J1001
IN CHARGE R. COFFIN	NOT FOR CONSTRUCTION	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE
DATE 06/06/12			AS SHOWN
REV	DATE	BY	CHK APP
		DESCRIPTION	

BVC 11157+9
ELEV 322.33

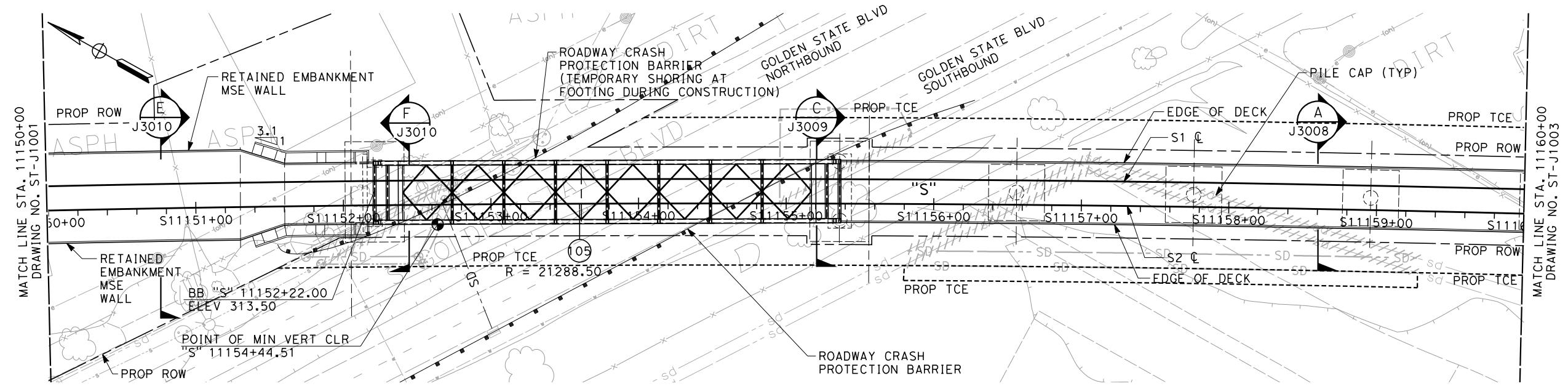
EVC 11208+91.22
ELEV 328.10

TOP OF RAIL "S" LINE

- NOTES:



ELEVATION



PLAN

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES FRESNO VIADUCT PLAN AND ELEVATION	CONTRACT NO. DRAWING NO. ST-J1002 SCALE AS SHOWN SHEET NO.	
					DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION					
					CHECKED BY Q. LIU						
					IN CHARGE R. COFFIN						
					DATE 06/06/12						
REV	DATE	BY	CHK	APP	DESCRIPTION						

CAHSPR-r1.tbl PDF_half_black_2009pi.pdf\global\americas\Jobs\N-F\131000\131577\4 Internal Project Data\4-03-03-05 Drawings\4-03-03-05 Design Sheets\Structure

BVC 11157+91.2
ELEV 322.33

1.55%

5100' VC R/C= -0.056%/ST

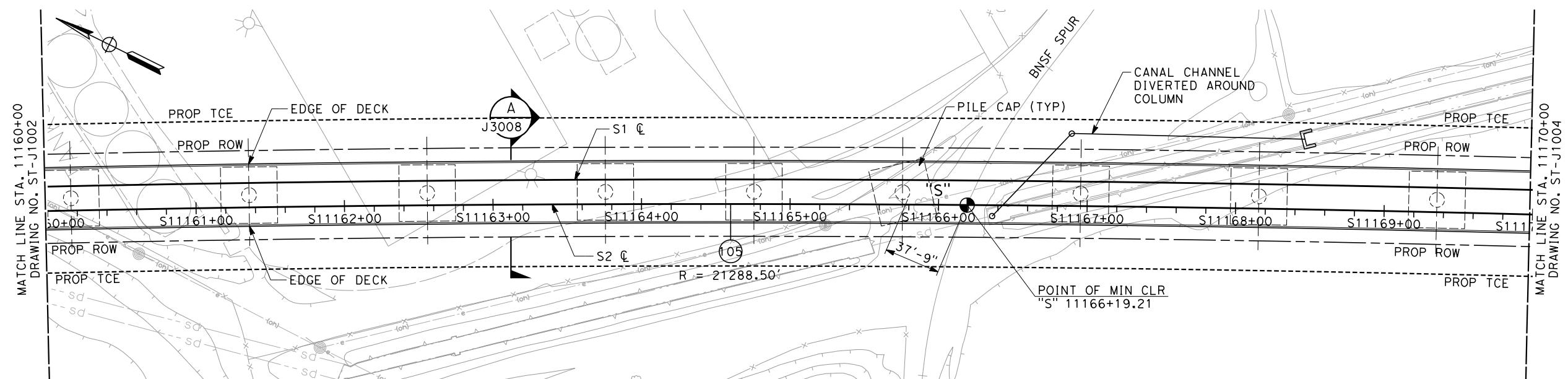
EVC 11208+91.22
ELEV 328.10
-1.324%

NOTES:

TOP OF RAIL "S" LINE

The diagram illustrates the longitudinal section of a bridge. The total length of the bridge is 6383'-0" (measured along "S" line). The spans are labeled as follows: BENT 6 (120'-0"), BENT 7 (120'-0"), BENT 8 (120'-0"), BENT 9 (120'-0"), BENT 10 (100'-0"), BENT 11 (100'-0"), BENT 12 (120'-0"), BENT 13 (120'-0"), and BENT 14 (120'-0"). Key features labeled include PARAPET (TYP), EXPANSION JOINT (TYP), TOP OF RAIL, APPROX OG, and MIN VERT CLR. The bridge is supported by bents labeled BENT 6 through BENT 14, each marked with 'F' and 'M' indicating foundation and main pier types. Vertical dimensions include "S" STA. 11160+00, ELEV 325.68, and MATCH LINE STA. 11160+00 DRAWING NO. ST-J1002. A note at the bottom left states DATUM ELEV = 200.00 (NGVD 88).

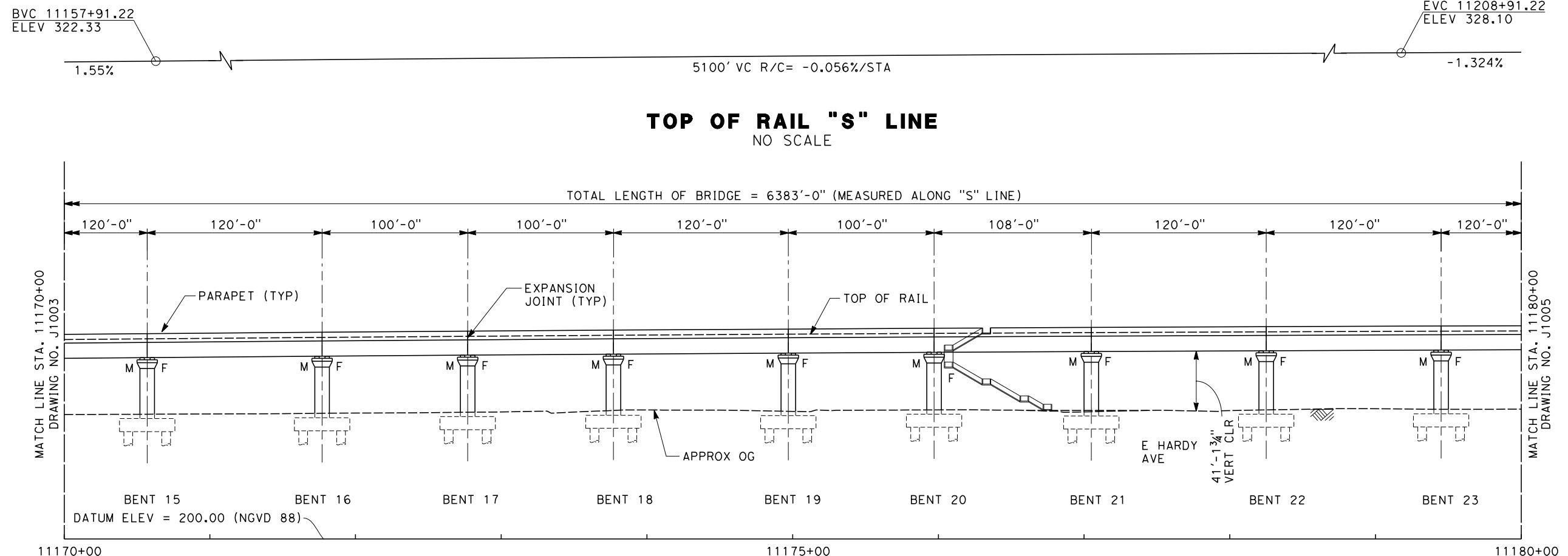
ELEVATION
SCALE 1" = 40'



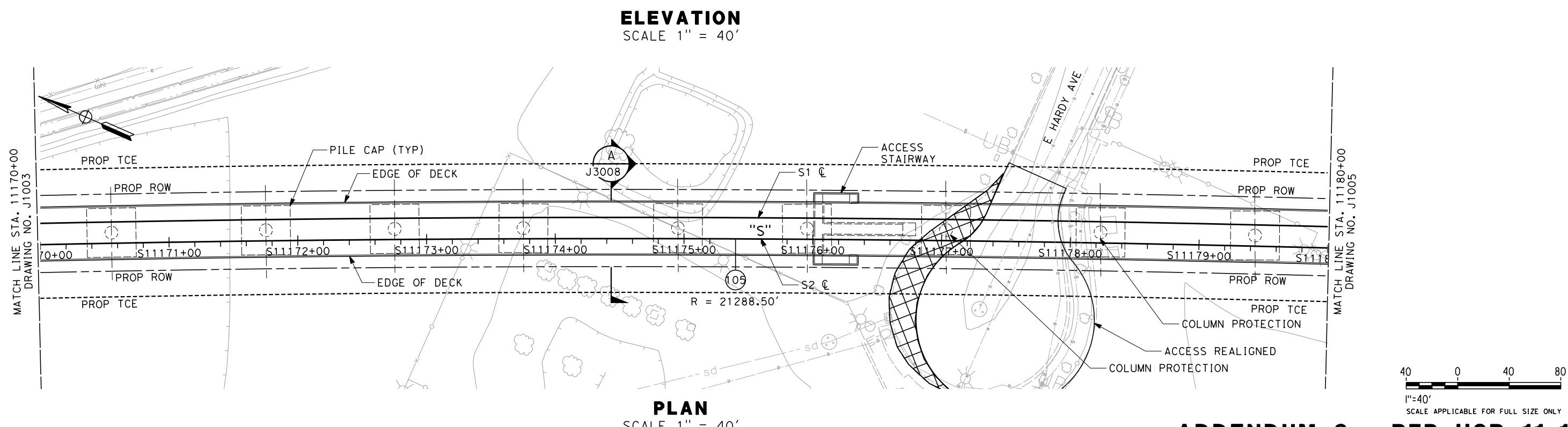
PLAN

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES FRESNO VIADUCT PLAN AND ELEVATION	CONTRACT NO. DRAWING NO. ST-J1003 SCALE AS SHOWN SHEET NO.
					DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION				
					CHECKED BY Q. LIU					
					IN CHARGE R. COFFIN					
					DATE 06/06/12					
REV	DATE	BY	CHK	APP	DESCRIPTION					



NOTES:
1. FOR NOTES SEE DRAWING NO.
ST-J1001



ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. ST-J1004
CHECKED BY O. LIU		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN
IN CHARGE R. COFFIN			SHEET NO.
DATE 06/06/12	DESCRIPTION		

CAHSRP-r1.tbl PDF_half_black_2000pi.pdf\global\americas\Jobs\N-F\131000\131577\4 Internal Project Data\4-03-03-05 Drawings\4-03-03-05 Design Sheets\Structure

BVC 11157+91.2
ELEV 322.33

5100' VC R/C= -0.056%/ST

EVC 11208+91.22
ELEV 328.10
-1.324%

NOTES:

TOP OF RAIL "S" LINE

TOTAL LENGTH OF BRIDGE = 6383'-0" (MEASURED ALONG "S" LINE)

MATCH LINE STA. 11180+00
DRAWING NO. ST-J1004

MATCH LINE STA. 11190+00
DRAWING NO. ST-J1006

120'-0" 120'-0" 120'-0" 120'-0" 120'-0" 120'-0" 120'-0" 120'-0" 120'-0" 120'-0"

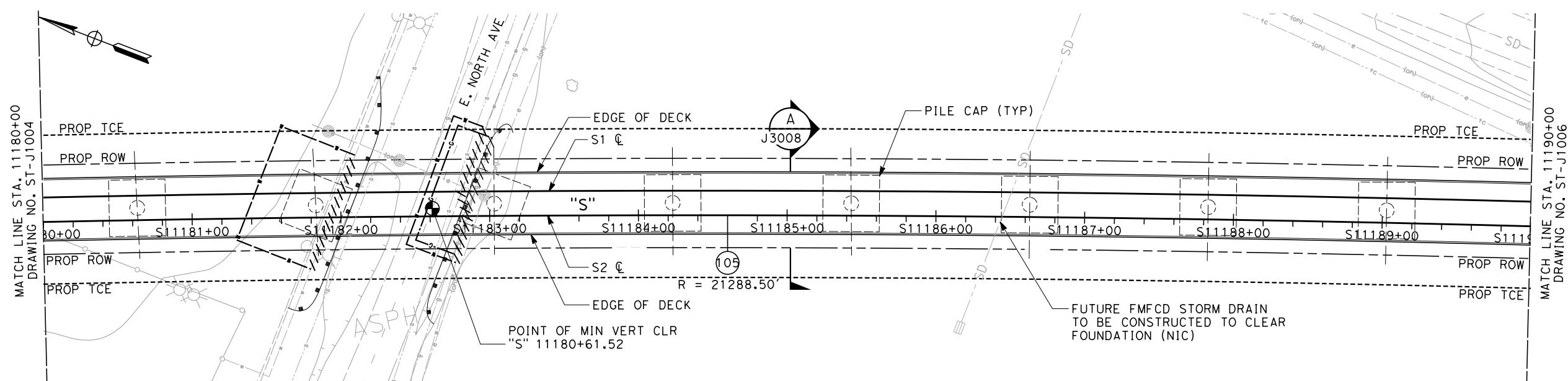
EXPANSION JOINT (TYP)
PARAPET (TYP)
TOP OF RAIL

E. NORTH AVE.
APPROX OG

BENT 24 BENT 25 BENT 26 BENT 27 BENT 28 BENT 29 BENT 30 BENT 31

DATUM ELEV = 200.00 (NGVD 88)
39'-6" +/- VERT CLR

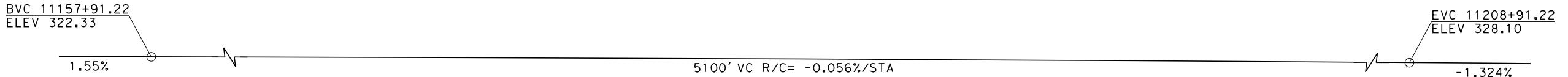
ELEVATION
SCALE 1" = 40'



PLAN

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES FRESNO VIADUCT PLAN AND ELEVATION	CONTRACT NO. DRAWING NO. ST-J1005 SCALE AS SHOWN SHEET NO.
					DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION				
					CHECKED BY Q. LIU					
					IN CHARGE R. COFFIN					
					DATE 06/06/12					
REV	DATE	BY	CHK	APP	DESCRIPTION					

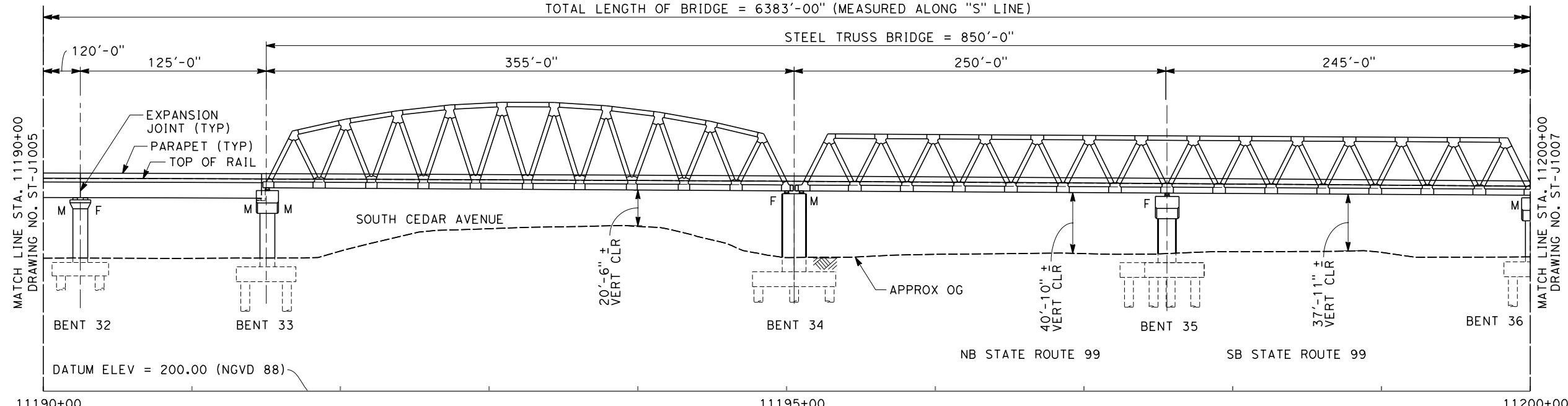


TOP OF RAIL "S" LINE

NO SCALE

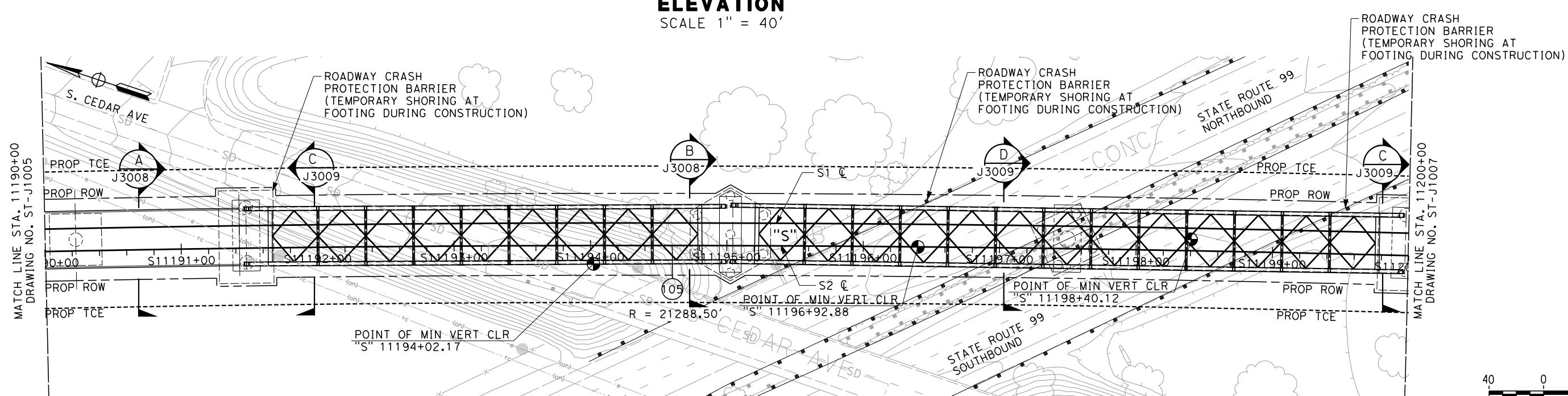
TOTAL LENGTH OF BRIDGE = 6383'-00" (MEASURED ALONG "S" LINE)

STEEL TRUSS BRIDGE = 850'-0"



ELEVATION

SCALE 1" = 40'

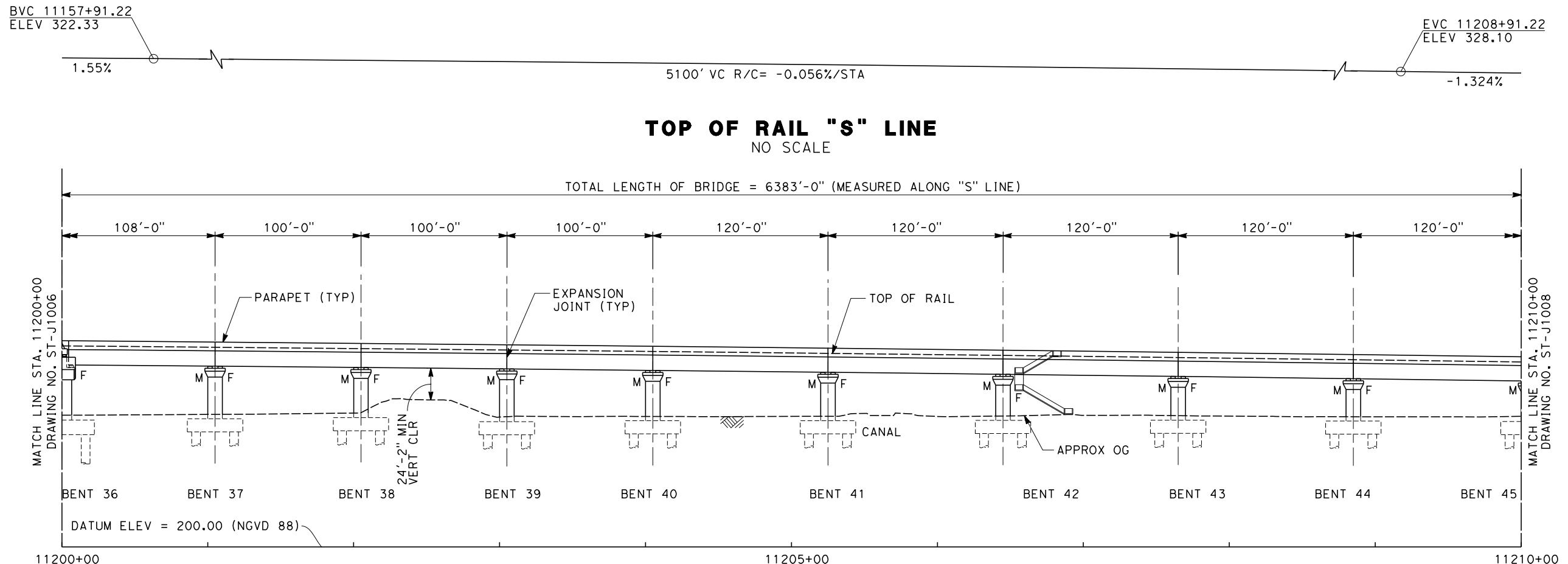


PLAN

SCALE 1" = 40'

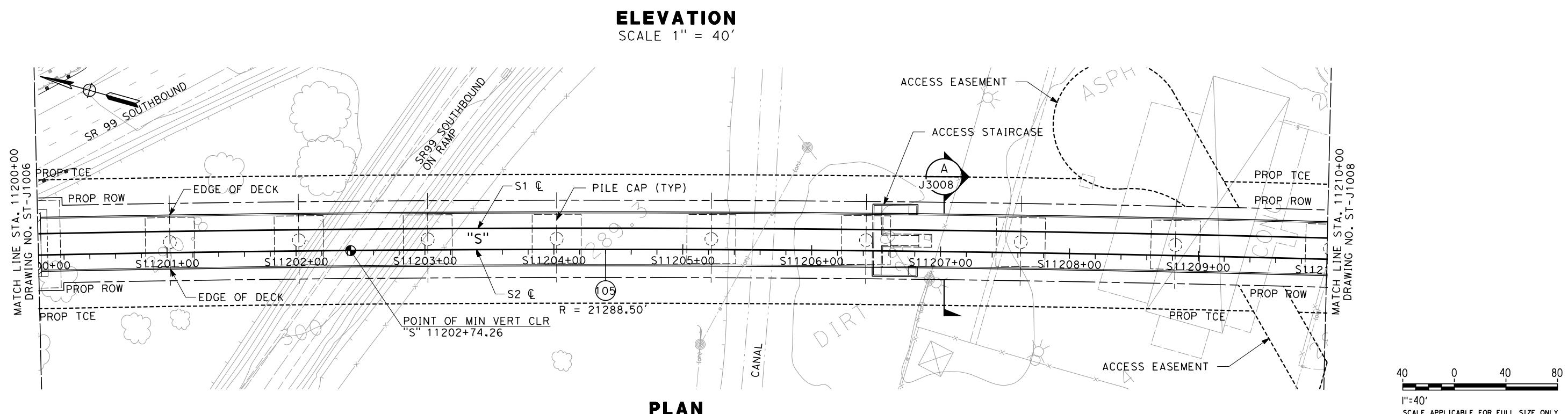
ADDENDUM 3 - RFP HSR 11-16

				DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
				DRAWN BY F. PALERMO					DRAWING NO.
				CHECKED BY O. LIU					ST-J1006
				IN CHARGE R. COFFIN	NOT FOR CONSTRUCTION				SCALE
				DATE 06/06/12					AS SHOWN
REV	DATE	BY	CHK	APP	DESCRIPTION				SHEET NO.



NOTES:

1. FOR NOTES SEE DRAWING NO. ST-J1001



ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY F. PALERMO	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. ST-J1007
CHECKED BY O. LIU		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE
IN CHARGE R. COFFIN			AS SHOWN
DATE 06/06/12			SHEET NO.
REV DATE BY CHK APP	DESCRIPTION		

CAHSRP-r1.tbl PDF_half_black_2009pi.pdf\global\americas\Jobs\N-F\131000\131577\4 Internal Project Data\4-03-03-05 Drawings\4-03-03-05 Design Sheets\Structure

BVC 11157+91
ELEV 322.33

EVC 11208+91.
ELEV 328.10

NOTES:

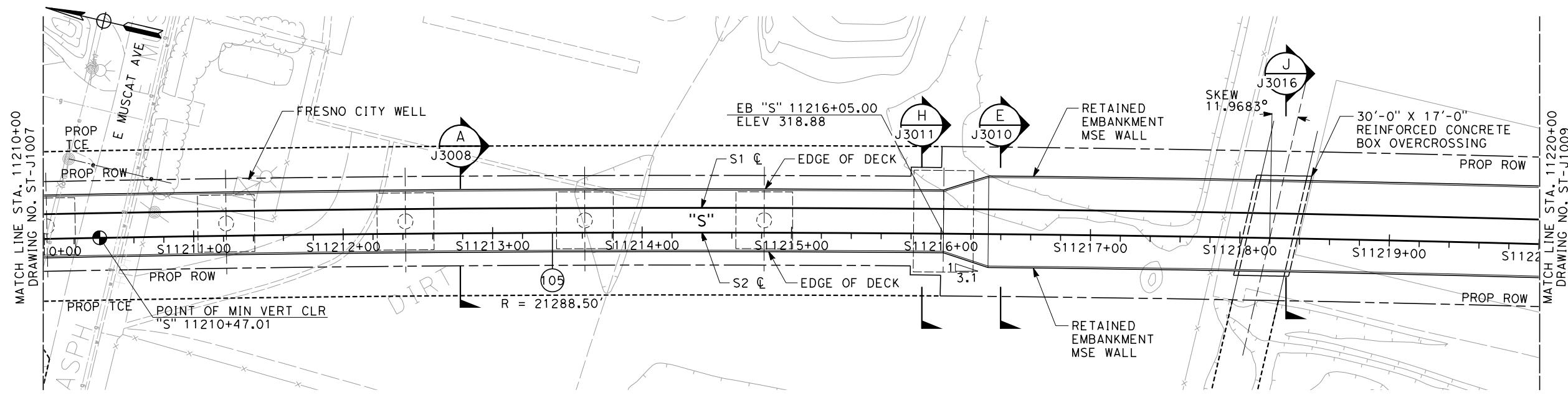
1. FOR NOTES SEE DRAWING NO.
ST-J1001

TOP OF RAIL "S" LINE

NO SCAL

ELEVATION

SCALE 1" = 4'



PLA

SCALE 1" = .

ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY A. ARMSTRONG	PROPOSED PRELIMINARY DESIGN NOT FOR CONSTRUCTION			CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C TRACK STRUCTURES FRESNO VIADUCT PLAN AND ELEVATION					CONTRACT NO.	
					DRAWN BY F. PALERMO										DRAWING NO.	
					CHECKED BY O. LIU										ST - J1008	
					IN CHARGE R. COFFIN										SCALE	
					DATE 06/06/12										AS SHOWN	
REV	DATE	BY	CHK	APP	DESCRIPTION											SHEET NO.

BVC 11220+26.87
ELEV 313.07EVC 11240+26.87
ELEV 300.27

-1.324%

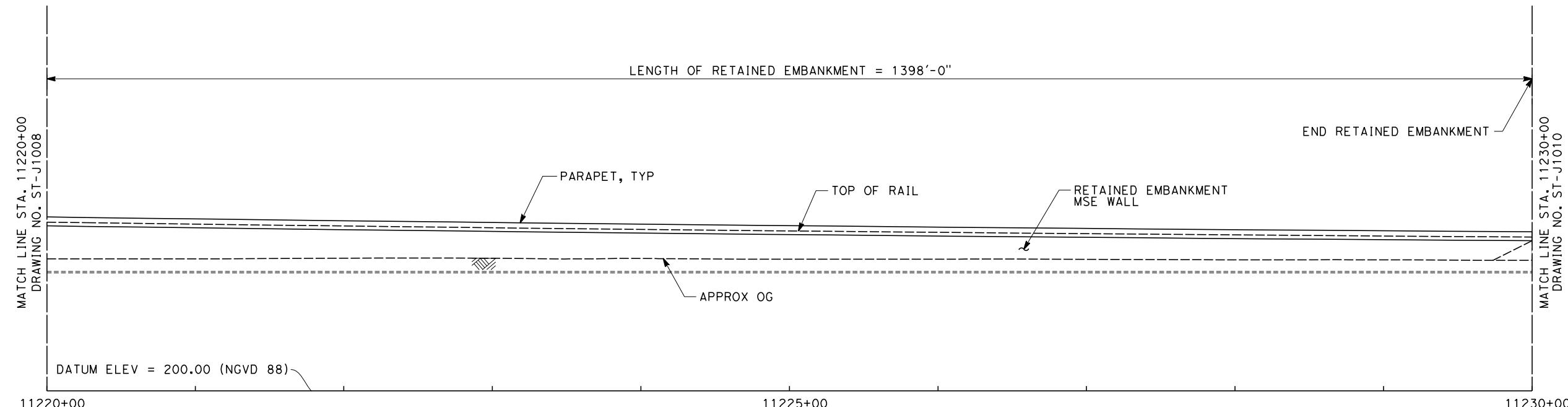
NOTES:
 1. FOR NOTES SEE DRAWING NO.
 ST-J1001

2000' VC R/C = +0.068%/STA

+0.044%

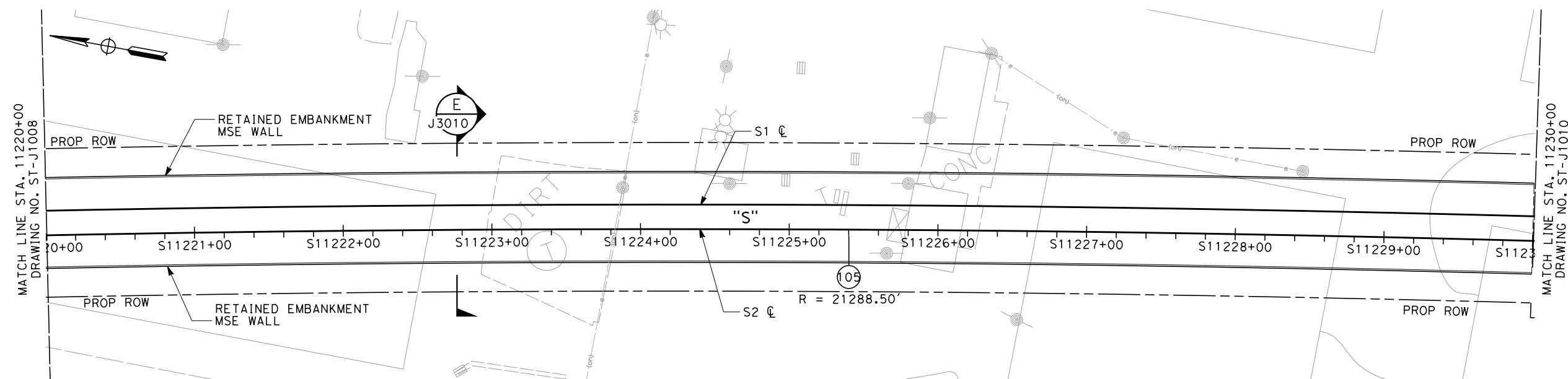
TOP OF RAIL "S" LINE

NO SCALE



ELEVATION

SCALE 1" = 40'



40 0 40 80
1"=40'
SCALE APPLICABLE FOR FULL SIZE ONLY

PLAN

SCALE 1" = 40'

ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION
					06/06/12

DESIGNED BY
A. ARMSTRONG
DRAWN BY
F. PALERMO
CHECKED BY
O. LIU
IN CHARGE
R. COFFIN
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
NOT FOR
CONSTRUCTION



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
TRACK STRUCTURES
FRESNO VIADUCT
PLAN AND ELEVATION

CONTRACT NO.
DRAWING NO.
ST-J1009
SCALE
AS SHOWN
SHEET NO.

Design Sheets\Structure\Design\4-03-03-05 Drawings\4-03-03-03 PDF - half_black_2000pi.pdf global\americas\jobs\S-F\131000\131577\4 Internal Project Data\4-03-03-05 Drawings\4-03-03-03 CAHSPR-r1.tbi

BVC 11220+26.
ELEV 313.07

ELEV 313.0

- 1 -

2000' VC B/C = +0.068%/ST

EVC 11240+26.87
ELEV 300.37

EVC 11240128.87
ELEV 300 37

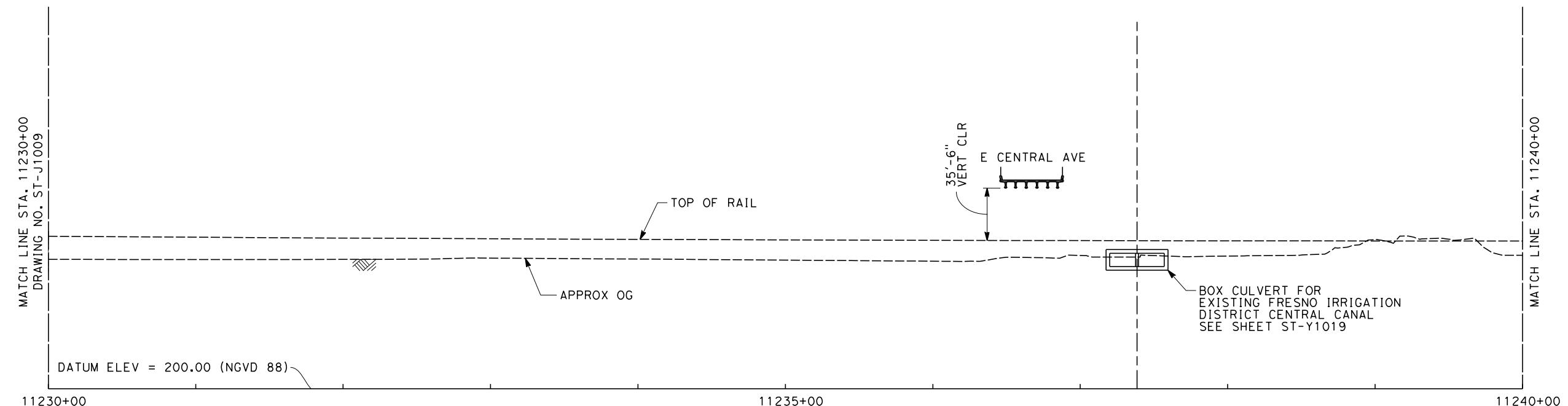
2020-03

TOP OF RAIL "S" LINE

NO SCAN

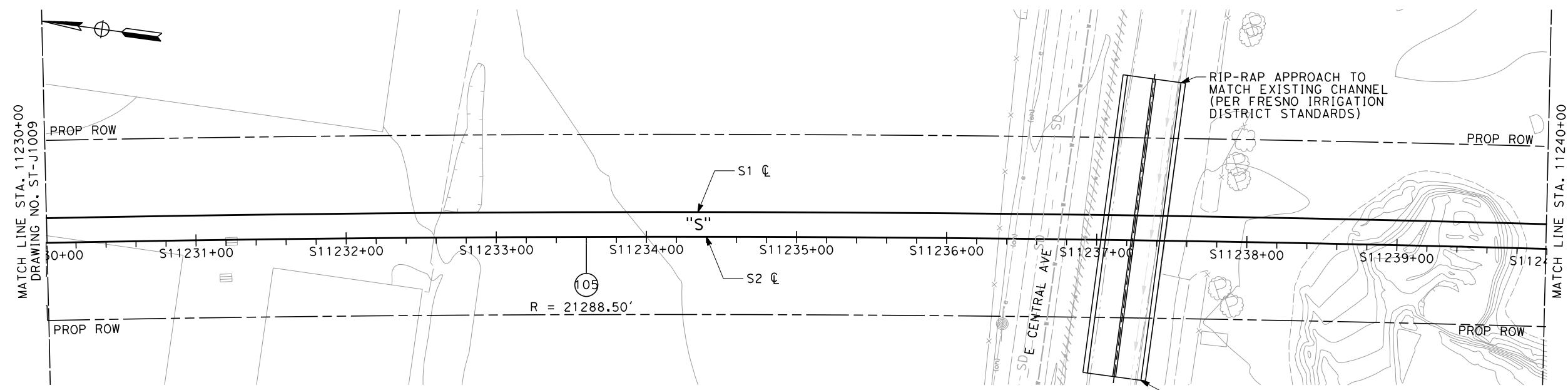
NOTES:

1. FOR NOTES SEE DRAWING NO.
ST-J1001



ELEVATION

SCALE 1" = 4'



PLA

SCALE 1" = 4'

RIP-RAP APPROACH TO MATCH EXISTING CHANNEL (PER FRESNO IRRIGATION DISTRICT STANDARDS)

SCALE APPLICABLE FOR FULL SIZE ONLY

DESIGNED
A. ARK
DRAWN BY
F. PA
CHECKED
Q. LI
IN CHARGE
R. CO
DATE
06

**PROPOSAL
PRELIMINARY
DESIGN**

NOT FOR CONSTRUCTION



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
TRACK STRUCTURES
FRESNO VIADUCT
PLAN AND ELEVATION

CONTRACT NO.
DRAWING NO. ST-J1010
SCALE AS SHOWN
SHEET NO.

VOLUME 3 - ROADWAY

DRAWING No	DRAWING DESCRIPTION
GE-A0017	PACKAGE 1C - ROADWAY - INDEX OF DRAWINGS
CV-B0015	PACKAGE 1C - ROADWAY - GENERAL NOTES
CV-B0016	PACKAGE 1C - ROADWAY - GENERAL STRUCTURAL NOTES
CV-B0017	PACKAGE 1C - ROADWAY - INDEX MAP
CV-T1031	PACKAGE 1C - ROADWAY - GRADE SEPARATION LAYOUT - E CHURCH AVE
CV-T1032	PACKAGE 1C - ROADWAY - GRADE SEPARATION PROFILE - E CHURCH AVE
CV-T1033	PACKAGE 1C - ROADWAY - GRADE SEPARATION PROFILE - G ST (E CHURCH AVE)
CV-T1034	PACKAGE 1C - ROADWAY - GRADE SEPARATION PROFILE - OLD E CHURCH AVE
CV-T1035	PACKAGE 1C - ROADWAY - GRADE SEPARATION PROFILE - S GOLDEN STATE BLVD
CV-T1036	PACKAGE 1C - ROADWAY - GRADE SEPARATION LAYOUT - E CENTRAL AVE
CV-T1037	PACKAGE 1C - ROADWAY - GRADE SEPARATION PROFILE - E CENTRAL AVE
CV-T1038	PACKAGE 1C - ROADWAY - GRADE SEPARATION PROFILE - E CEDAR AVE (E CENTRAL AVE)
CV-T1039	PACKAGE 1C - ROADWAY - GRADE SEPARATION LAYOUT - E AMERICAN AVE
CV-T1040	PACKAGE 1C - ROADWAY - GRADE SEPARATION PROFILE - E AMERICAN AVE
CV-T3012	PACKAGE 1C - ROADWAY - GRADE SEPARATION - TYPICAL SECTIONS
CV-T3013	PACKAGE 1C - ROADWAY - GRADE SEPARATION - TYPICAL SECTIONS
CV-T5005	PACKAGE 1C - ROADWAY CLOSURE DETAILS - S CHERRY AVE THROUGH E FLORENCE AVE
CV-T5006	PACKAGE 1C - ROADWAY CLOSURE DETAILS - S RAILROAD AVE
CV-T5007	PACKAGE 1C - ROADWAY CLOSURE DETAILS - S RAILROAD AVE
CV-T5008	PACKAGE 1C - ROADWAY CLOSURE DETAILS - E HARDY AVE
CV-T5009	PACKAGE 1C - ROADWAY CLOSURE DETAILS - E MALAGA AVE
ST-K1045	PACKAGE 1C - ROADWAY - DRAFT GENERAL PLAN - E CHURCH AVE - SHEET 1 OF 2
ST-K1046	PACKAGE 1C - ROADWAY - DRAFT GENERAL PLAN - E CHURCH AVE - SHEET 2 OF 2
ST-K1047	PACKAGE 1C - ROADWAY - DRAFT GENERAL PLAN - E CENTRAL AVE
ST-K1048	PACKAGE 1C - ROADWAY - DRAFT GENERAL PLAN - E AMERICAN AVE

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY M. Bamm	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP  CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY 	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C ROADWAY INDEX OF DRAWINGS	CONTRACT NO. DRAWING NO. GE-A0017 SCALE NO SCALE SHEET NO.
DRAWN BY J. BORGHESI	NOT FOR CONSTRUCTION				
CHECKED BY J. MONG					
IN CHARGE R. COFFIN					
DATE 06/06/12					
REV	DATE	BY	CHK	APP	DESCRIPTION

CIVIL GENERAL NOTES

A. CONTROL SURVEY AND MAPPING:

1. DESIGN WAS PREPARED USING TOPOGRAPHIC MAPPING OBTAINED FOR THE PURPOSE OF PRELIMINARY DESIGN IN ACCORDANCE WITH TECHNICAL MEMORANDUM 1.1.4 "ENGINEERING SURVEY AND MAPPING."
2. NAD 83 (NSRS2007), (1991.35) CALIFORNIA COORDINATE SYSTEM DATUM SHALL BE USED AS HORIZONTAL COORDINATE VALUES.
3. NAVD 88 VERTICAL DATUM SHALL TO BE USED AS VERTICAL DATUM.
4. MAPPING SHALL BE BASED ON CALIFORNIA COORDINATE SYSTEM (CCS 83) IN US CUSTOMARY UNITS.
5. NETWORK OF CONTROL SURVEY MONUMENTS WAS ESTABLISHED AT TWO MILE INTERVALS ALONG THE CHSTP ALIGNMENT. THESE CONTROL MONUMENTS SHALL BE USED IN FUTURE SURVEYS TO ENSURE THAT SURVEY ACTIVITIES ARE BASED ON THE SAME ADJUSTMENT POSITIONS AND EPOCH THAT TRANSITIONS BETWEEN ZONES OF THE CALIFORNIA COORDINATE SYSTEM ARE UNIFORM AND CORRECT.

B. GENERAL SITE NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE. CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE AND BECOMING FAMILIAR WITH THE SITE CONDITIONS PRIOR TO BIDDING.
2. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH LOCAL AND STATE JURISDICTION INSPECTOR(S). CONTRACTOR SHALL NOTIFY LOCAL AND STATE JURISDICTION INSPECTOR(S) ----- DAYS PRIOR TO THE START OF ANY CONSTRUCTION.
3. ALL DAMAGE CAUSED BY THE CONTRACTOR AND/OR SUB-CONTRACTOR SHALL BE RESTORED TO AN "AS GOOD OR BETTER" CONDITION.
4. UPON COMPLETION, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL.
5. FOR STANDARD GENERAL ABBREVIATIONS, SEE DRAWINGS SD-GE-001 THRU SD-GE-004.
6. FOR STANDARD GENERAL SYMBOLS, SEE DRAWINGS SD-GE-005 THRU SD-GE-007.
7. "ORIGINAL GROUND" SHOWN ON CROSS SECTIONS REFERS TO THE APPROXIMATE EXISTING GROUND LINE AT THE DESIGNATED CENTERLINE, BASELINE, LAYOUT LINE OR SECTION LINE.
8. THE CONTRACTOR SHALL MAINTAIN EXISTING SITE SURVEY CONTROL POINTS AND BENCH MARKS. SURVEY CONTROL POINTS OR BENCH MARKS DAMAGED OR REMOVED BY THE CONTRACTOR SHALL BE RESTORED BY A REGISTERED LAND SURVEYOR.
9. ALL WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL CODES AND ORDINANCES IN EFFECT. CONTRACTOR SHALL PROVIDE AND MAINTAIN PROPER BARRICADES, RAILINGS, GUARDS, FLAGGING, LIGHTING, OR OTHER DEVICES NECESSARY FOR THE PROTECTION OF LIFE AND PROPERTY.

10. THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING MATERIALS.

11. ALL HORIZONTAL AND VERTICAL DISTANCES ARE IN FEET AND /OR DECIMALS OF FOOT EXCEPT AS NOTED OTHERWISE.

12. ACCESS ROAD TYPE SHALL BE CONFIRMED ON A SITE-BY-SITE BASIS.

13. REFER TO RIGHT-OF-WAY APPRAISAL MAPS FOR LIMITS OF RIGHT-OF-WAY AND TEMPORARY CONSTRUCTION EASEMENTS.

14. AT NOTED ACCESS EASEMENTS, THE CONTRACTOR SHALL PROVIDE AN ACCESS ROAD BETWEEN THE FACILITY AND THE PUBLIC ROAD.

C. DEMOLITION NOTES

1. CONTRACTOR MUST REVIEW ALL ENVIRONMENTAL STUDIES AND REQUIREMENTS PRIOR TO BIDDING.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING TEMPORARY ACCESS DURING CONSTRUCTION. UTILITY OUTAGE AND ACCESS CLOSURES DURING CONSTRUCTION REQUIRE A MINIMUM OF ----- DAYS NOTICE TO OWNER OR SITE TENANTS.
3. CONTRACTOR SHALL FOLLOW LOCAL JURISDICTION REQUIREMENTS FOR CLEARING AND GRUBBING.

D. GRADING

1. NO CONTRACTOR SHALL PERFORM ANY GRADING OPERATION SO AS TO CAUSE FALLING ROCKS, SOIL OR DEBRIS IN ANY FORM TO FALL, SLIDE OR FLOW ONTO ADJOINING PROPERTIES, STREETS OR NATURAL WATERCOURSES. SHOULD SUCH VIOLATION OCCUR THE CONTRACTOR MAY BE CITED AND THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL REMEDIAL ACTIONS NECESSARY.
2. THE CONTRACTOR SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST NUISANCE.
3. PROVISIONS SHALL BE MADE TO PREVENT SURFACE WATERS FROM DAMAGING THE CUT FACE OF AN EXCAVATION OR THE SLOPED SURFACES OF A FILL. FURTHERMORE, PROVISIONS SHALL BE MADE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE SITE.
4. ALL SLOPED AND EXPOSED AREAS SHALL BE SODDED OR PLANTED AS SOON AS FINAL GRADES HAVE BEEN ESTABLISHED. PLANTING SHALL NOT BE DELAYED UNTIL ALL GRADING WORK HAS BEEN COMPLETED. GRADING TO FINAL GRADE SHALL BE CONTINUOUS, AND ANY AREA WITHIN WHICH WORK HAS BEEN INTERRUPTED OR DELAYED SHALL BE PLANTED.
5. THE LIMITS OF THE AREA TO BE GRADED SHALL BE FLAGGED BEFORE THE COMMENCEMENT OF THE GRADING WORK.
6. ALL GRADING OPERATIONS SHALL BE PERFORMED IN CONFORMANCE WITH THE APPLICABLE PROVISIONS OF THE WATER POLLUTION CONTROL AND WATER QUALITY STANDARDS CONTAINED IN THE LATEST CALTRANS STORM WATER QUALITY HANDBOOKS.

E. TEMPORARY TRAFFIC CONTROL

1. CONTRACTOR SHALL OBTAIN APPROVAL FOR TRAFFIC CONTROL PLAN FROM AGENCY HAVING JURISDICTION OVER THE ROADWAY PRIOR TO IMPLEMENTATION OF TEMPORARY TRAFFIC CONTROL.

F. PUBLIC HEATH, SAFETY, AND CONVENIENCE NOTES

1. CONTRACTOR SHALL OBSERVE AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL LAWS REQUIRED FOR THE PROTECTION OF PUBLIC HEALTH, SAFETY, AND ENVIRONMENTAL QUALITY.
2. CONTRACTOR SHALL APPLY FOR A CONSTRUCTION PERMIT WITH A NOISE POLLUTION CONTROL PLAN.

G. STOCKPILING NOTES

1. IF THE STOCKPILING WORK INVOLVES CONTAMINATED SOIL, THEN ALL STOCKPILING WORK SHALL BE DONE IN CONFORMANCE WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.

H. GRUBBING AND CLEARING NOTES

1. WHERE APPLICABLE AND FEASIBLE THE MEASURES TO CONTROL EROSION AND OTHER POLLUTANTS SHALL BE IN PLACE BEFORE ANY GRUBBING WORK IS INITIATED.

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY M. Bamm	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.
DRAWN BY E. Sudhausen	NOT FOR CONSTRUCTION			DRAWING NO. CV-B0015
CHECKED BY J. Mong				SCALE AS SHOWN
IN CHARGE S. Burges				SHEET NO.
REV DATE BY CHK APP	DESCRIPTION	DATE 06/06/12		

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
ROADWAY
GENERAL NOTES

GENERAL NOTES LOAD AND RESISTANCE FACTOR DESIGN

DESIGN: HIGH SPEED RAIL DESIGN CRITERIA,
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS
4th EDITION AND CALTRANS AMENDMENTS

STANDARD SPECIFICATIONS: HIGH SPEED RAIL SPECIFICATIONS,
CALTRANS STANDARD SPECIFICATIONS
DATED 2010

SEISMIC DESIGN: HIGH SPEED RAIL DESIGN CRITERIA,
CALTRANS SEISMIC DESIGN CRITERIA (SDC)
VERSION 1.6, NOVEMBER 2010

DEAD LOAD: INCLUDES 35 PSF FOR FUTURE WEARING SURFACE

LIVE LOADING: HL93 AND PERMIT DESIGN LOAD

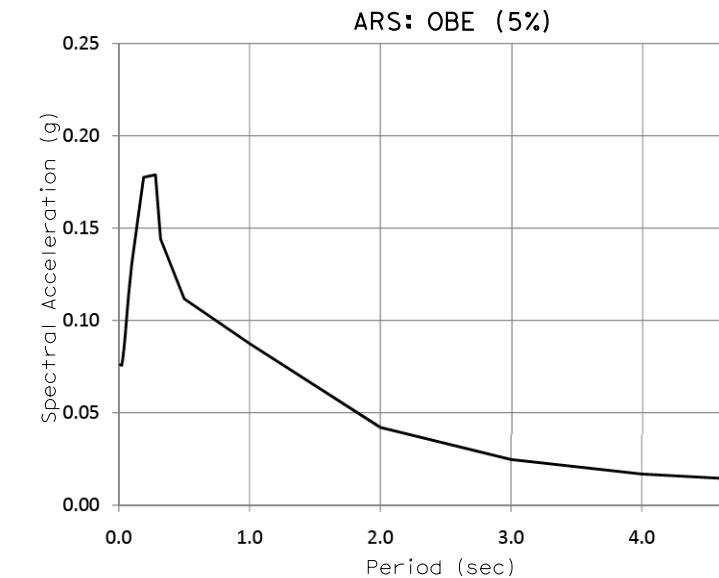
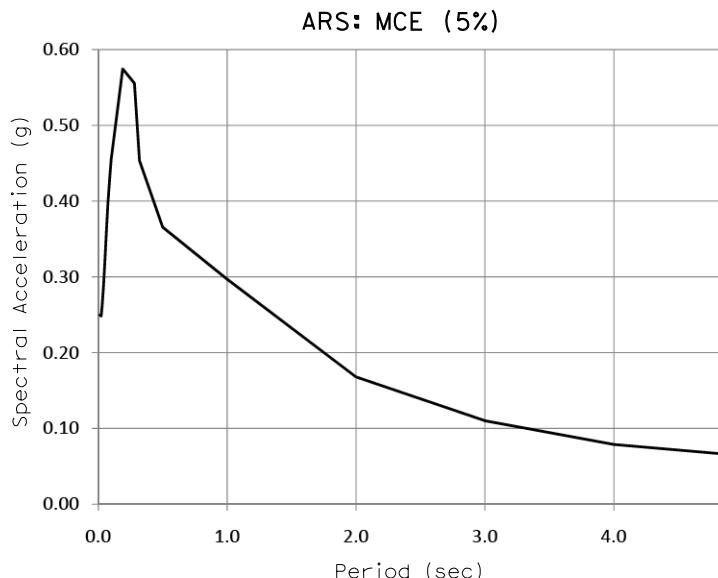
WIND LOAD: 100 MPH WIND VELOCITY

REINFORCED CONCRETE: $f_y = 60 \text{ ksi}$
 $f'_c = \text{SEE CONCRETE STRENGTH AND TYPE LIMITS}$

PRESTRESSED CONCRETE: LOW RELAXATION STRANDS
 $f_{py} = 243 \text{ ksi}$
 $f_{pu} = 270 \text{ ksi}$
 $f'_{ci} = 5 \text{ ksi AT TIME OF RELEASE}$
 $f'_{ci} = 7 \text{ ksi AT 28 DAYS}$

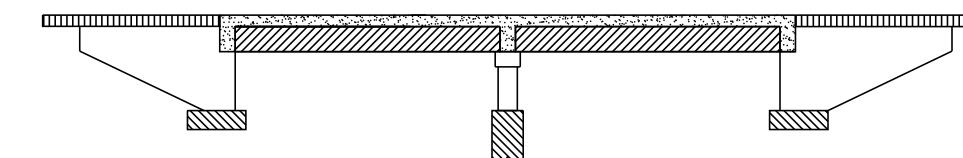
PILES: CLASS 200 PILES

CLASS 140 PILES
CLASS 90 PILES

GENERAL STRUCTURAL NOTES

1. PILE/SHAFT LENGTHS TO BE DETERMINED
2. EMBEDDED ITEMS REQUIRED FOR UTILITY INSTALLATIONS ARE NOT SHOWN ON THE STRUCTURAL DRAWINGS. CONTRACTOR SHALL REFER TO THE UTILITY DRAWINGS FOR THE LOCATIONS AND DETAILS OF THESE ITEMS.
3. MSE WALL REINFORCEMENT AND PANEL TO BE DETERMINED
4. ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATIONS AND OTHER DRAWINGS RELATED TO THE WORK.
5. ALL SPANS ARE DESIGNED CONTINUOUS FOR LIVE LOAD.



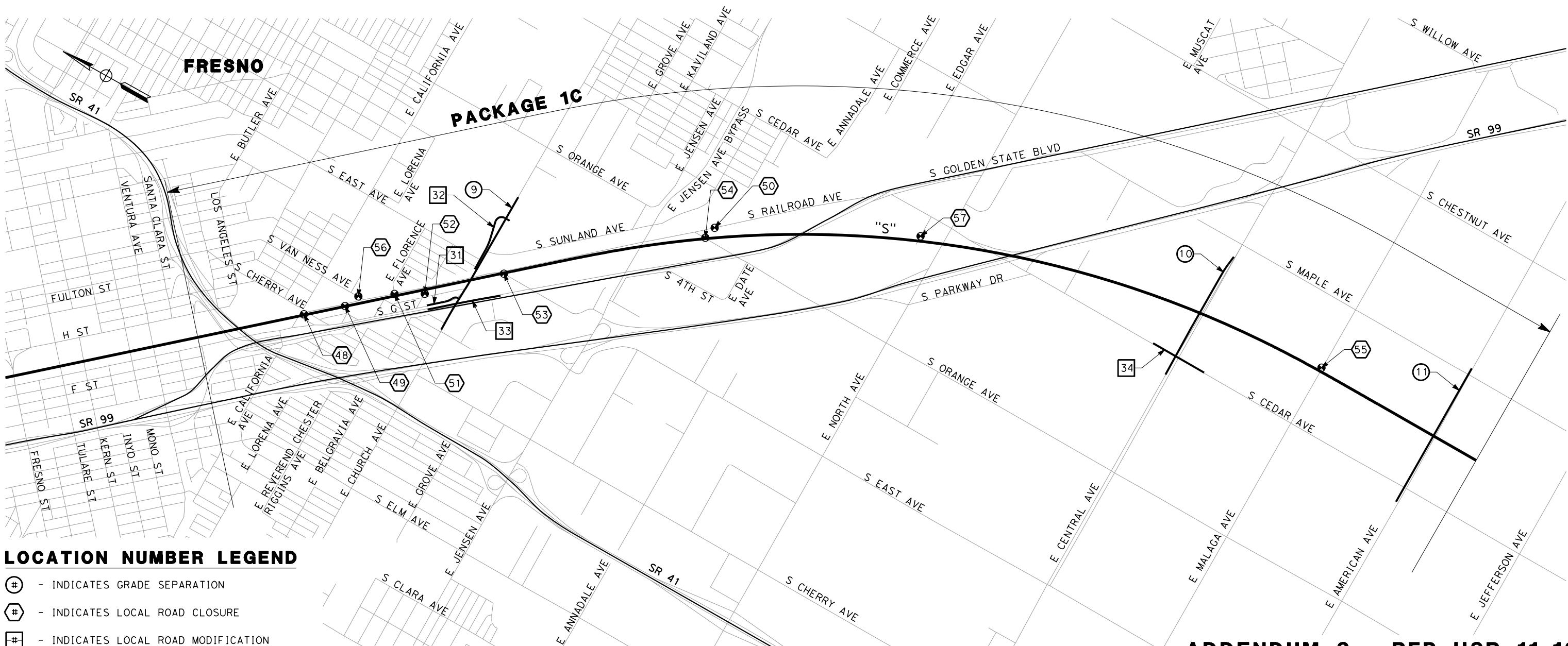
-  STRUCTURAL CONCRETE, BRIDGE
 $f'_c = 5 \text{ ksi AT 28 DAYS}$
-  STRUCTURAL CONCRETE, APPROACH SLAB
 $f'_c = 4 \text{ ksi AT 28 DAYS}$
-  STRUCTURAL CONCRETE, SUPERSTRUCTURE
 $f'_c = 5 \text{ ksi AT 28 DAYS}$
-  STRUCTURAL CONCRETE, BRIDGE FOOTING
 $f'_c = 4 \text{ ksi AT 28 DAYS}$
-  PRECAST PRESTRESSED GIRDERS
 $f'_c = \text{SEE PRESTRESSED CONCRETE}$

CONCRETE STRENGTH AND TYPE LIMITS NO SCALE

REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY S.T. MAK	DRAWN BY E. SUDHAUSEN	CHECKED BY A. ARMSTRONG	IN CHARGE S. BURGES	PROPOSED PRELIMINARY DESIGN	NOT FOR CONSTRUCTION	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C ROADWAY GENERAL STRUCTURAL NOTES	CONTRACT NO.	DRAWING NO.	SCALE	SHEET NO.

LOCATION NO.	SHEET TITLE	ROADWAY DWG NO.	STRUCTURE DWG NO.
(9)	GRADE SEPARATION - E CHURCH AVE	CV-T1031 & CV-T1032	
(10)	GRADE SEPARATION - E CENTRAL AVE	CV-T1036 & CV-T1037	
(11)	GRADE SEPARATION - E AMERICAN AVE	CV-T1039 & CV-T1040	
[31]	LOCAL ROAD - G ST (E CHURCH AVE)	CV-T1031 & CV-T1033	
[32]	LOCAL ROAD - OLD E CHURCH AVE	CV-T1031 & CV-T1034	
[33]	LOCAL ROAD - S GOLDEN STATE BLVD	CV-T1031 & CV-T1035	
[34]	LOCAL ROAD - S CEDAR AVE (E CENTRAL AVE)	CV-T1036 & CV-T1038	
[48]	ROAD CLOSURE - E CALIFORNIA AVE & S CHERRY AVE	CV-T5005	

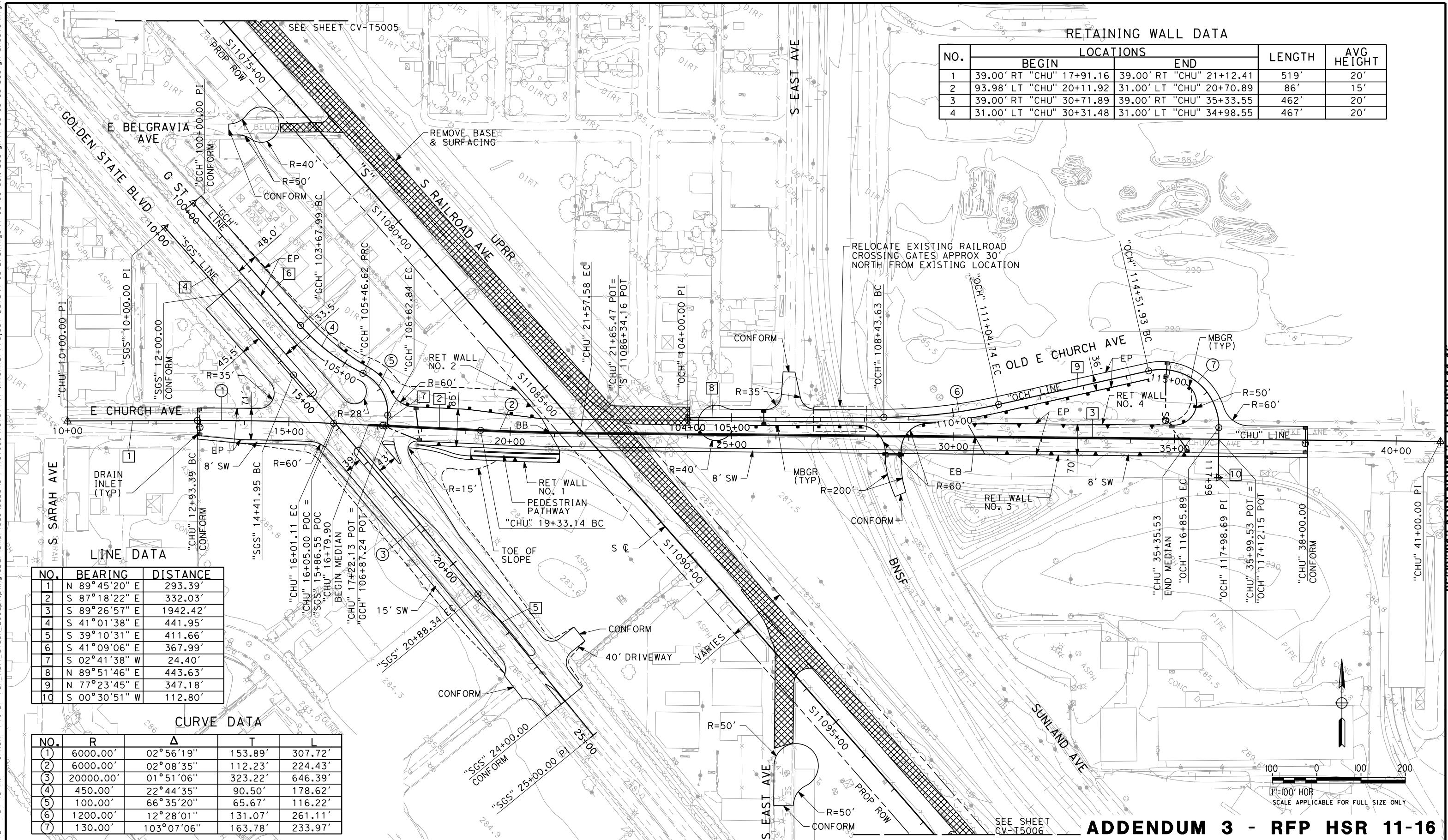
LOCATION NO.	SHEET TITLE	ROADWAY DWG NO.	STRUCTURE DWG NO.
49	ROAD CLOSURE - E LORENA AVE	CV-T5005	
50	ROAD CLOSURE - S RAILROAD AVE	CV-T5007	
51	ROAD CLOSURE - E FLORENCE AVE & S SARAH ST	CV-T5005	
52	ROAD CLOSURE - E BELGRAVIA AVE	CV-T1031	
53	ROAD CLOSURE - S EAST AVE	CV-T1031	
54	ROAD CLOSURE - S ORANGE AVE	CV-T5007	
55	ROAD CLOSURE - E MALAGA AVE	CV-T5009	
56	ROAD CLOSURE - S VAN NESS AVE	CV-T5005	
57	ROAD CLOSURE - E HARDY AVE	CV-T5008	



LOCATION NUMBER LEGEND

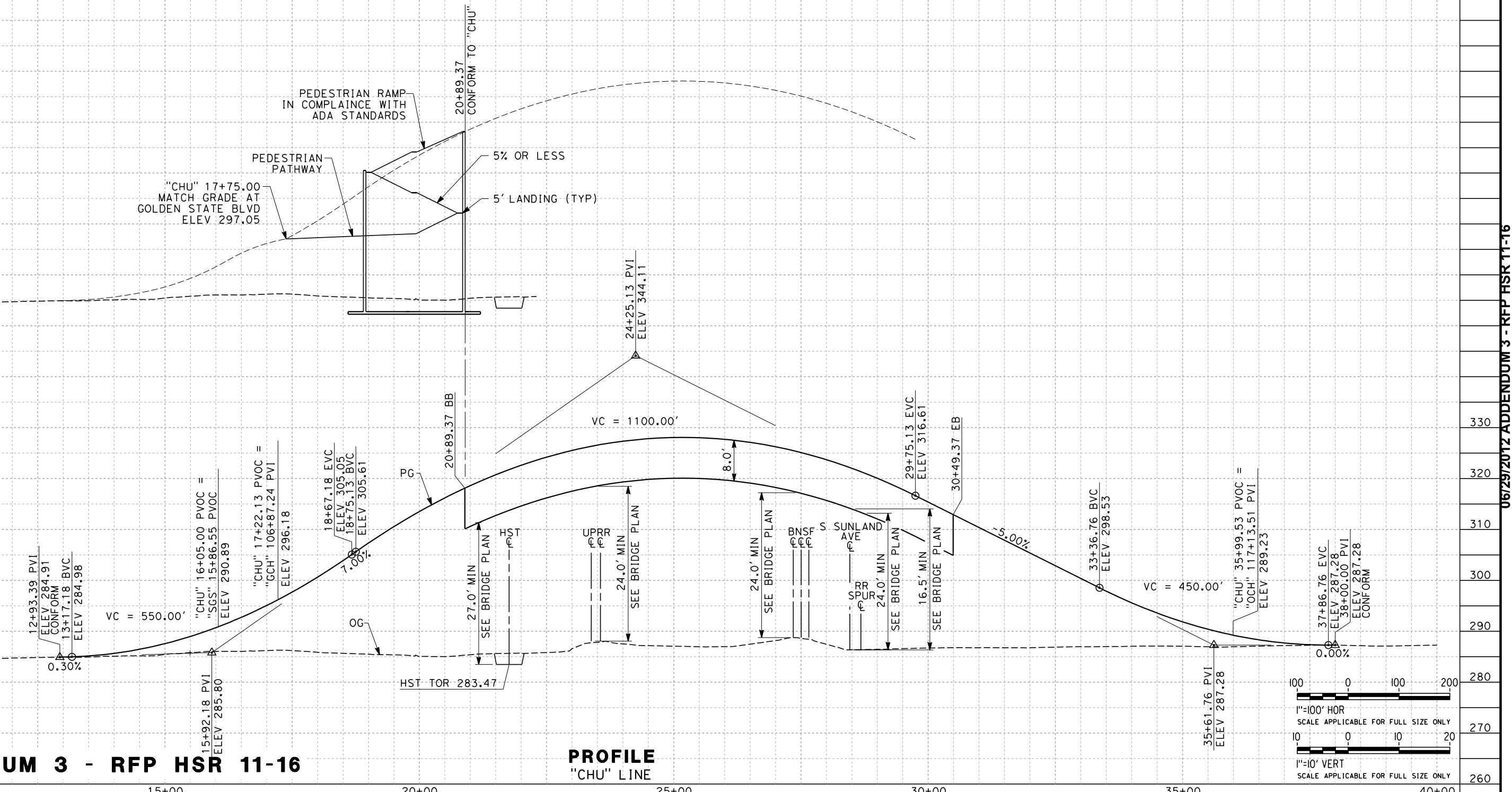
- INDICATES GRADE SEPARATION
 - INDICATES LOCAL ROAD CLOSURE
 - INDICATES LOCAL ROAD MODIFICATION

ADDENDUM 3 - RFP HSR 11-16



NOTES:

1. FOR BRIDGE INFORMATION, SEE STRUCTURAL PLANS.



ADDENDUM 3 - RFP HSR 11-1

PROFIL



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

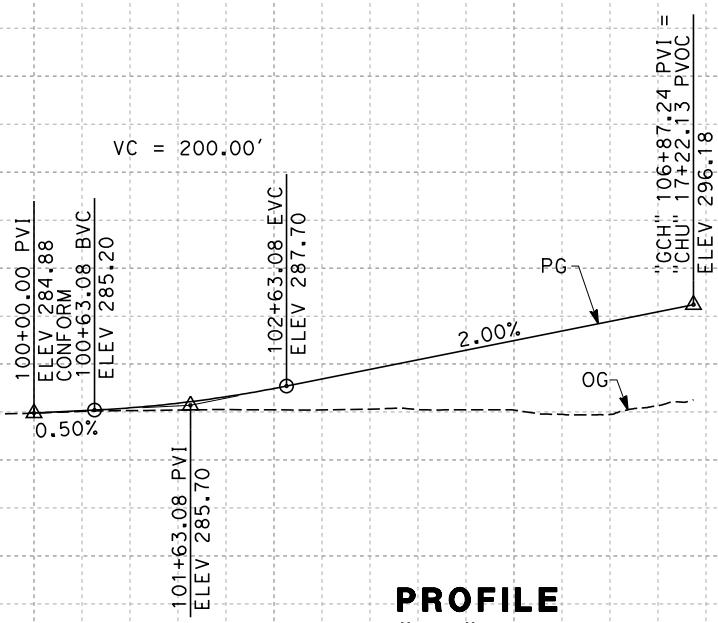
PACKAGE 1C
ROADWAY

GRADE SEPARATION PROFILE
E CHURCH AVE

CONTRACT NO.
DRAWING NO.
CV-T1032
SCALE
AS SHOWN
SHEET NO.

NOTES:

1. FOR BRIDGE INFORMATION, SEE STRUCTURAL PLANS.



ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
M. Bamm
DRAWN BY
E. Sudhausen
CHECKED BY
S. Burges
IN CHARGE
R. Coffin
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1C
ROADWAY
GRADE SEPARATION PROFILE
G ST (E CHURCH AVE)

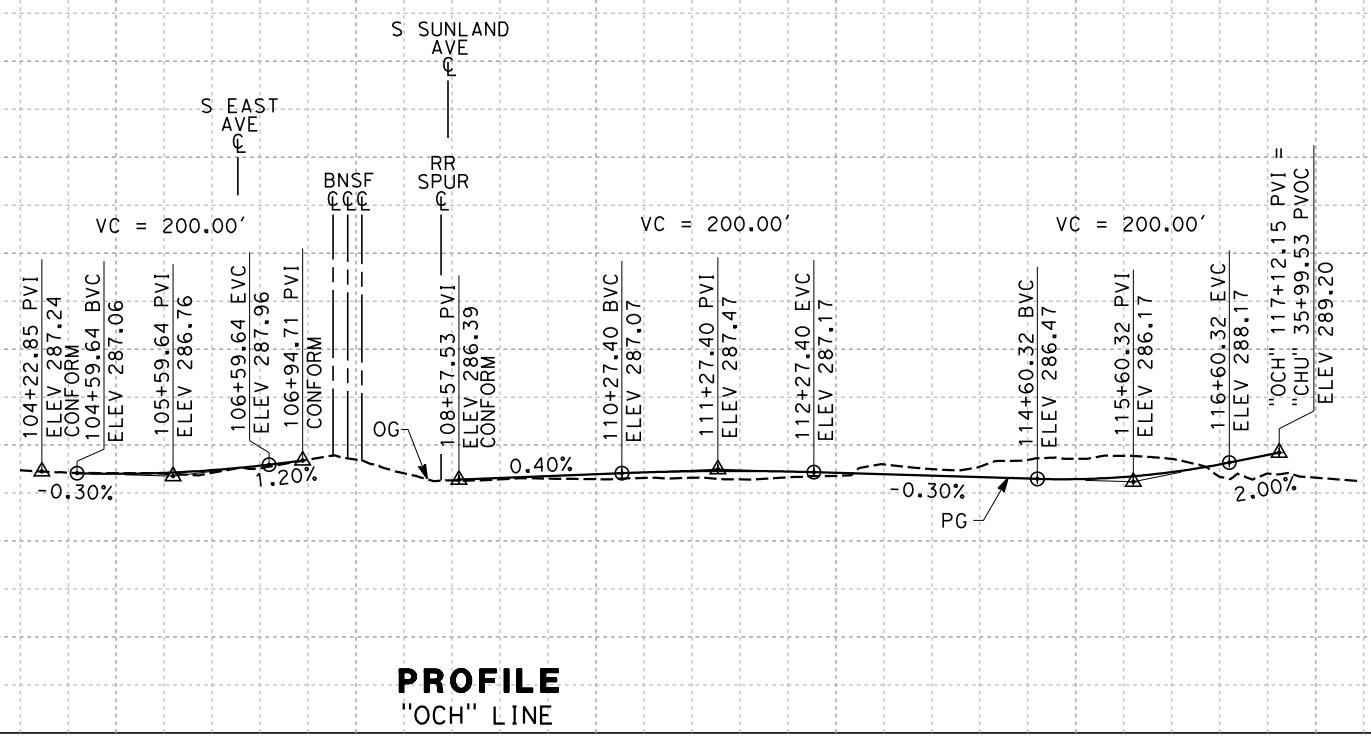
CONTRACT NO.
DRAWING NO.
CV-T1033
SCALE
AS SHOWN
SHEET NO.

100 0 100 200
I'=100' HOR
SCALE APPLICABLE FOR FULL SIZE ONLY
10 0 10 20
I'=10' VERT
SCALE APPLICABLE FOR FULL SIZE ONLY

0629/2012 ADDENDUM 3 - RFP HSR 11-16

NOTES:

1. FOR BRIDGE INFORMATION, SEE STRUCTURAL PLANS.



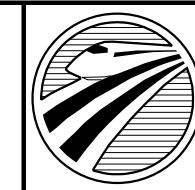
ADDENDUM 3 - RFP HSR 11-1

PROFILE

0	DESIGNED M. BA
	DRAWN BY E. SU
	CHECKED S. BU
	IN CHARGE R. CO
	DATE 06

**PROPOSED
PRELIMINARY
DESIGN**

**NOT FOR
CONSTRUCTION**



CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
ROADWAY
GRADE SEPARATION PROFILE
OLD E CHURCH AVE

CONTRACT NO.
DRAWING NO. CV-T1034
SCALE AS SHOWN
SHEET NO.

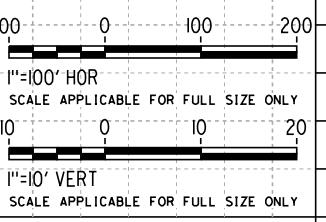
NOTES:

1. FOR BRIDGE INFORMATION, SEE STRUCTURAL PLANS.

0629/2012 ADDENDUM 3 - RFP HSR 11-16

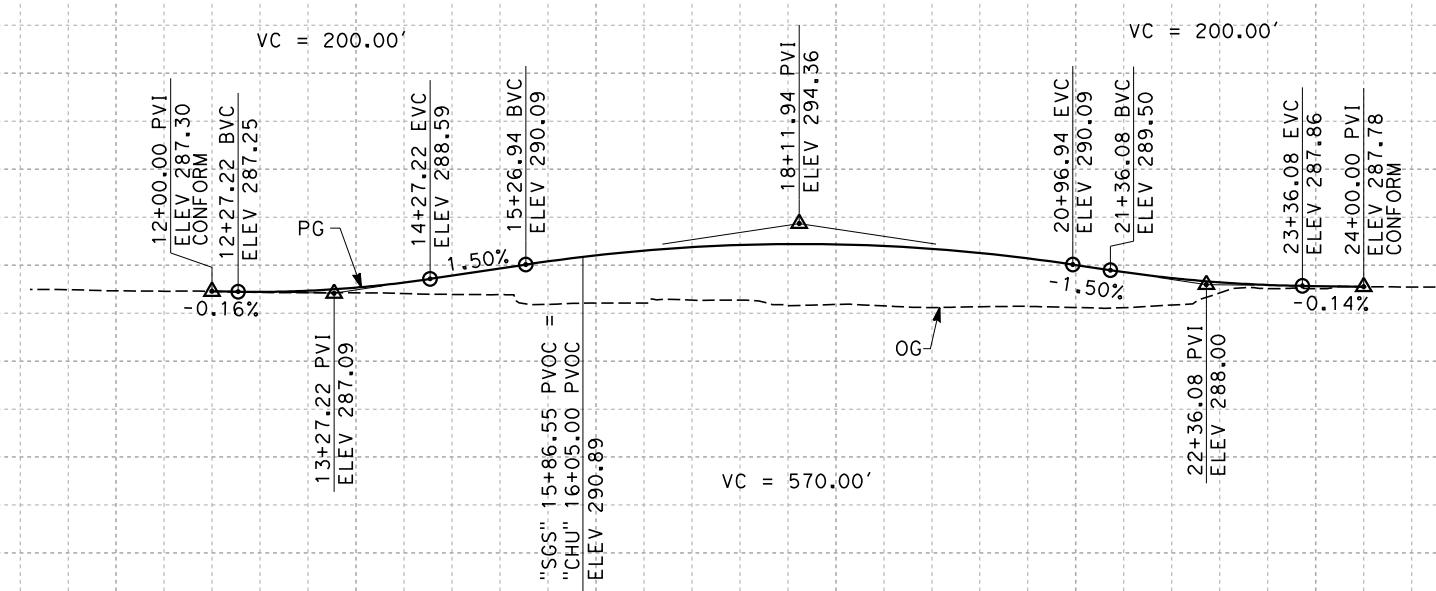
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ADDENDUM 3 - RFP HSR 11-16

PROFILE "SGS" LINE



REV	DATE	BY	CHK	APP	DESCRIPTION
	06/06/12				

DESIGNED BY
M. Bamm
DRAWN BY
E. Sudhausen
CHECKED BY
S. Burges
IN CHARGE
R. Coffin
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
NOT FOR
CONSTRUCTION



CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1C
ROADWAY
GRADE SEPARATION PROFILE
S GOLDEN STATE BLVD

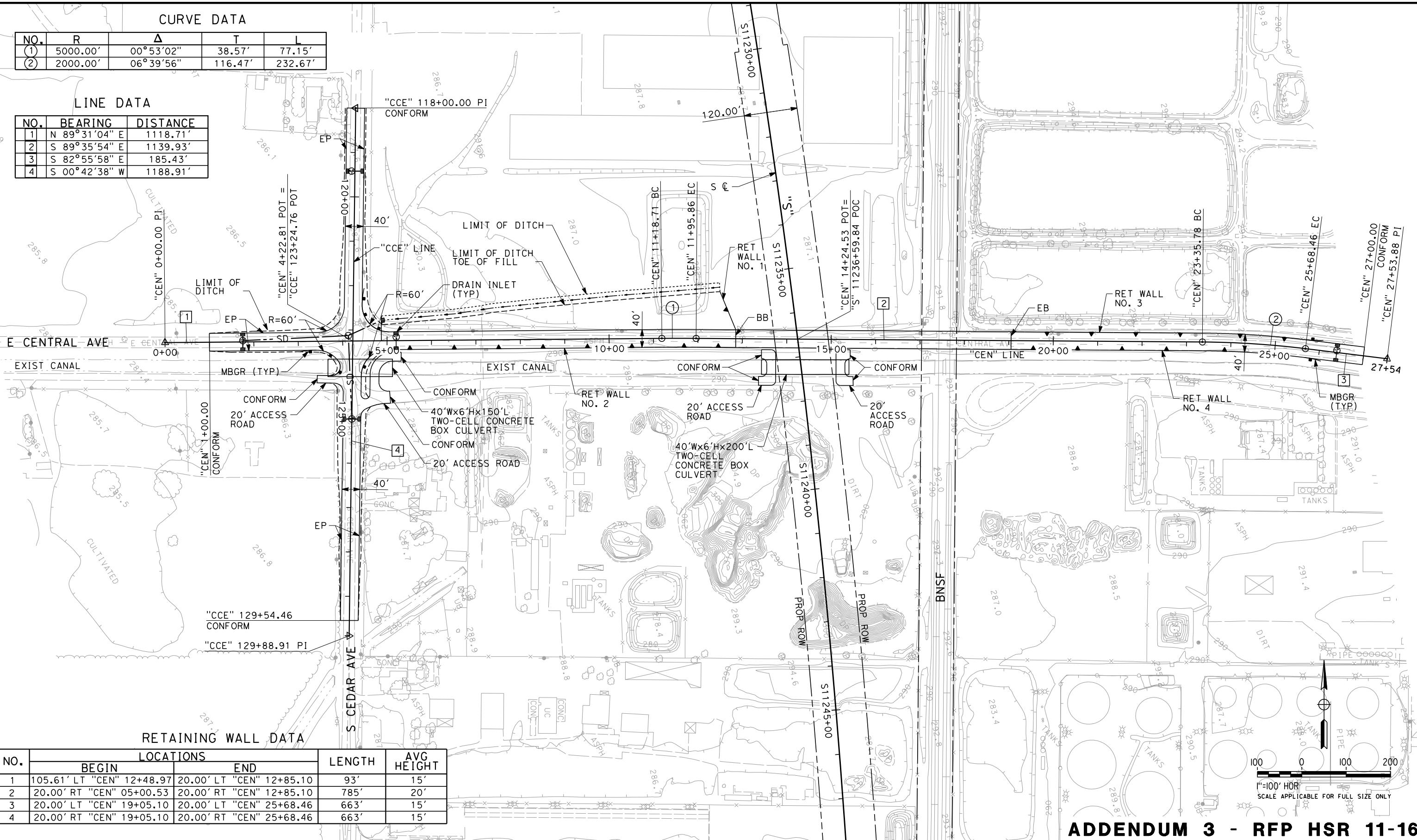
CONTRACT NO.
DRAWING NO.
CV-T1035
SCALE
AS SHOWN
SHEET NO.

CURVE DATA

NO.	R	Δ	T	L
(1)	5000.00'	00° 53' 02"	38.57'	77.15'
(2)	2000.00'	06° 39' 56"	116.47'	232.67'

LINE DATA

NO.	BEARING	DISTANCE
1	N $89^{\circ} 31' 04''$ E	1118.71'
2	S $89^{\circ} 35' 54''$ E	1139.93'
3	S $82^{\circ} 55' 58''$ E	185.43'
4	S $00^{\circ} 42' 38''$ W	1188.91'



RETAINING WALL DATA

NO.	LOCATIONS		LENGTH	AVG HEIGHT
	BEGIN	END		
1	105.61' LT "CEN" 12+48.97	20.00' LT "CEN" 12+85.10	93'	15'
2	20.00' RT "CEN" 05+00.53	20.00' RT "CEN" 12+85.10	785'	20'
3	20.00' LT "CEN" 19+05.10	20.00' LT "CEN" 25+68.46	663'	15'
4	20.00' RT "CEN" 19+05.10	20.00' RT "CEN" 25+68.46	663'	15'

DESIGNED BY
M. Bamm
DRAWN BY
E. Sudha
CHECKED BY
J. Mong
IN CHARGE
R. Coffin
DATE
06/06

**PROPOSAL
PRELIMINARY
DESIGN**

**NOT FOR
CONSTRUCTION**



ADDENDUM 3 - RFP HSR 11-16

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

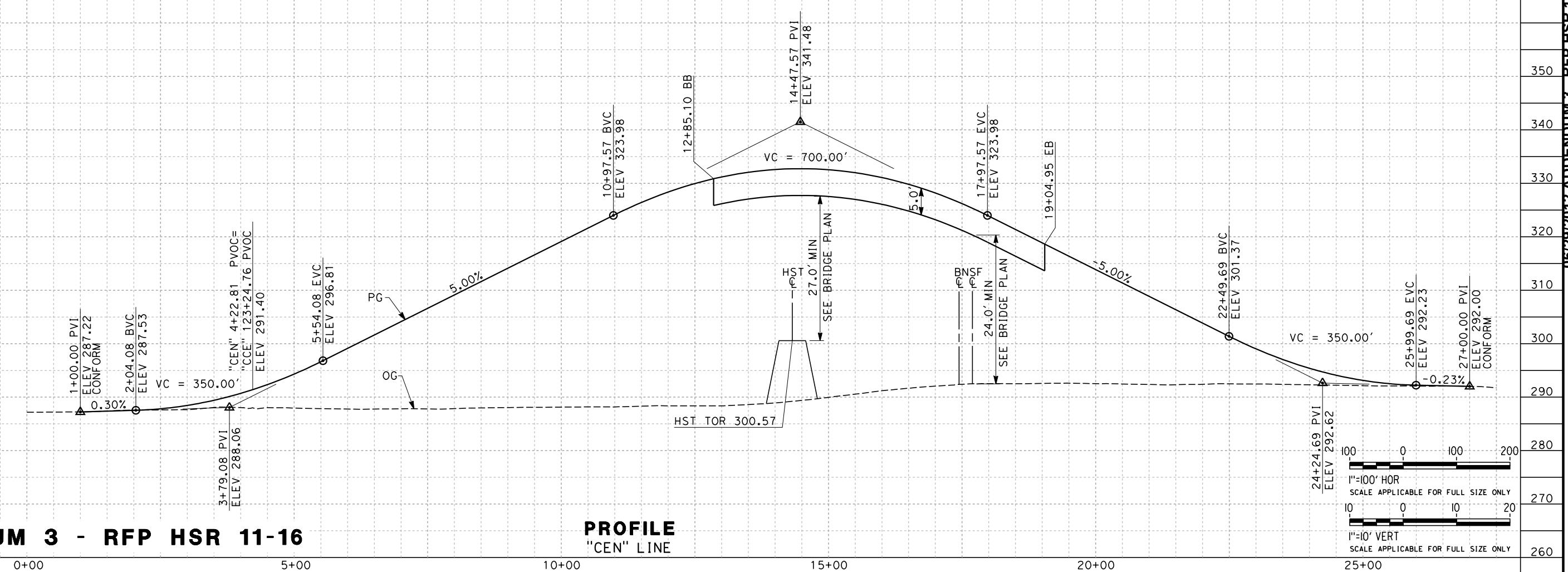
PACKAGE 1C
ROADWAY

GRADE SEPARATION LAYOUT
E CENTRAL AVE

CONTRACT NO. _____
DRAWING NO. CV-T1036
SCALE AS SHOWN
SHEET NO. _____

NOTES:

1. FOR BRIDGE INFORMATION, SEE STRUCTURAL PLANS.



NOTES:

1. FOR BRIDGE INFORMATION, SEE STRUCTURAL PLANS.

0629/2012 ADDENDUM 3 - RFP HSR 11-16

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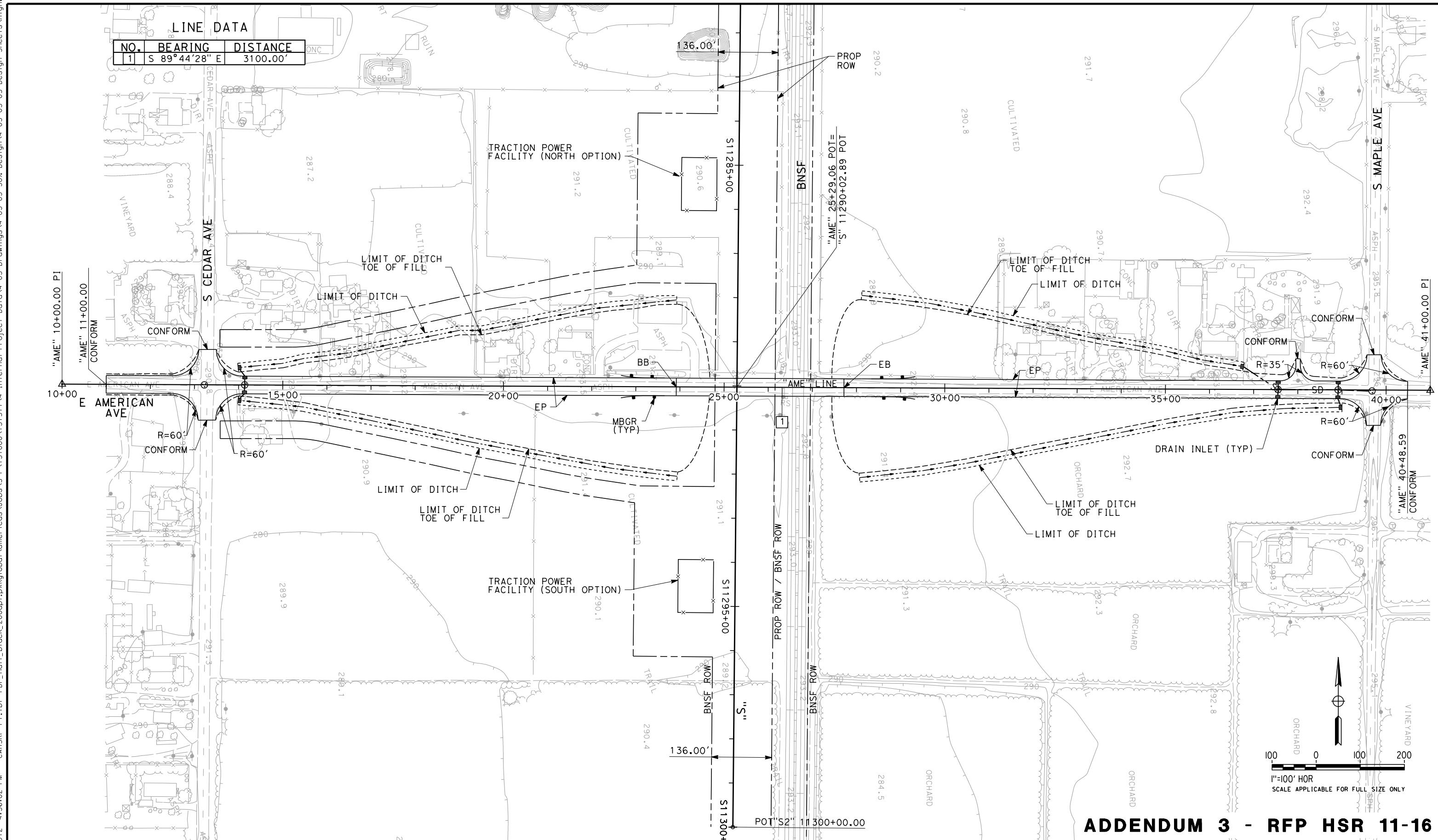
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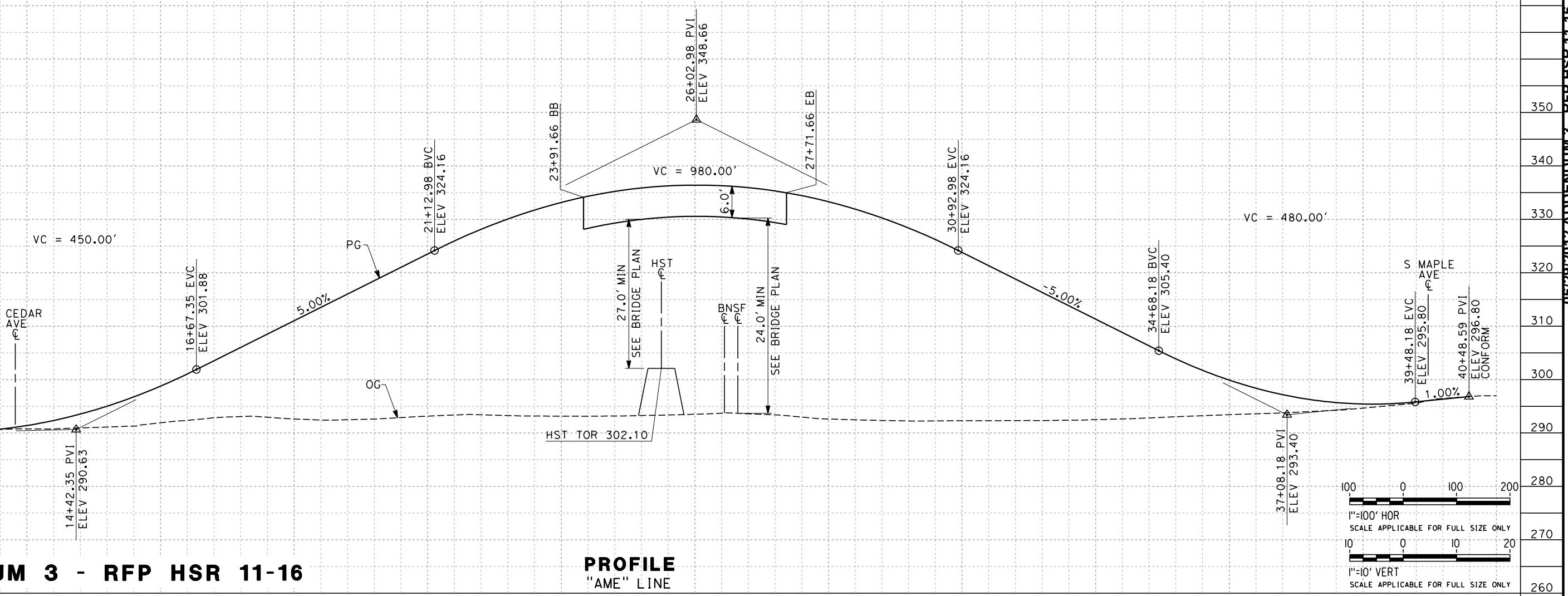


ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY M. Bamm	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C ROADWAY GRADE SEPARATION LAYOUT E AMERICAN AVE	CONTRACT NO. DRAWING NO. CV-T1039 SCALE AS SHOWN SHEET NO.
					DRAWN BY E. SUDHAUSEN	NOT FOR CONSTRUCTION				
					CHECKED BY J. MONG					
					IN CHARGE R. COFFIN					
					DATE 06/06/12					
REV	DATE	BY	CHK	APP	DESCRIPTION					

NOTES:

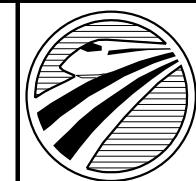
1. FOR BRIDGE INFORMATION, SEE STRUCTURAL PLANS.



ADDENDUM 3 - RFP HSR 11-1

PROFILE

"AME" LINE



CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
ROADWAY
GRADE SEPARATION PROFILE
E AMERICAN AVE

CONTRACT NO.
DRAWING NO. CV-T1040
SCALE AS SHOWN
SHEET NO.

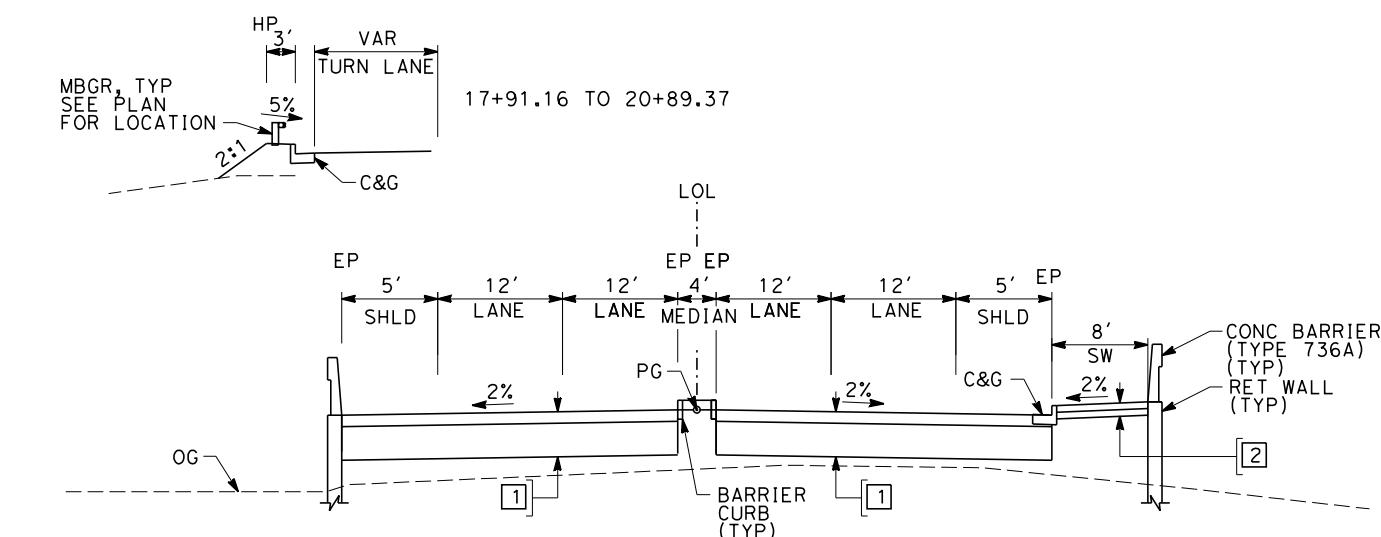
STRUCTURAL SECTION

TYPICAL ROADWAY

[1]	[0.50' HMA (TYPE A) 1.50' CL2 AB]
[2]	[0.35' PCC 0.35' CL2 AB]

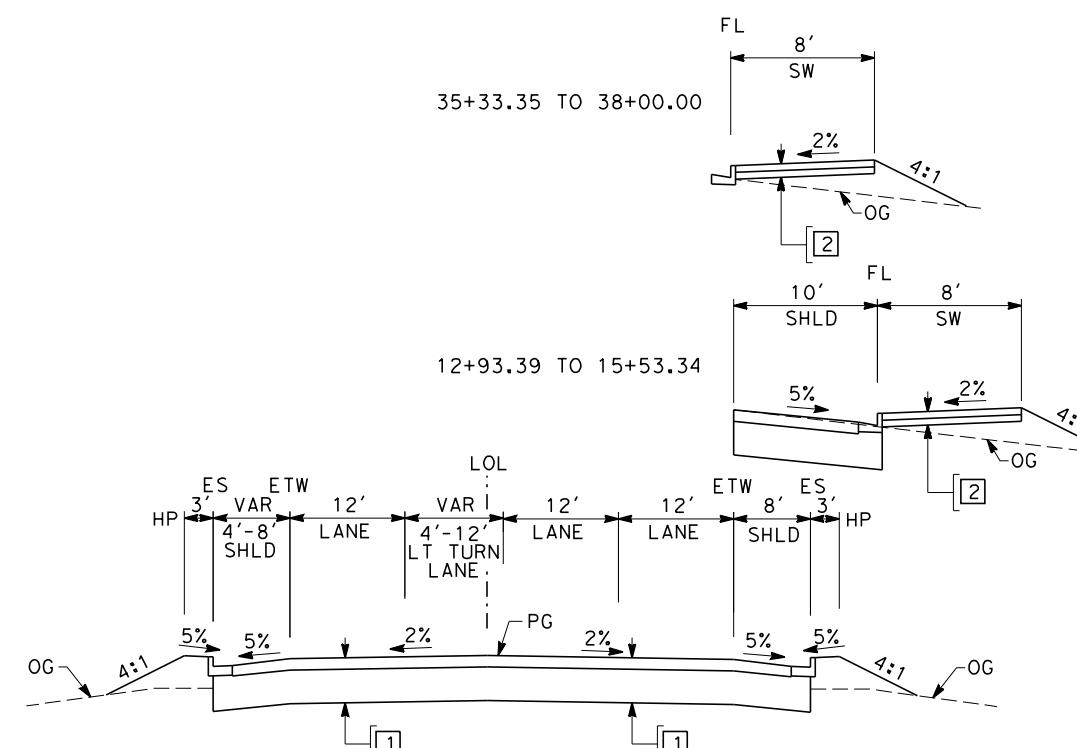
DESIGN SPEED TAB

STREET NAME	ALIGNMENT DESIGNATION	DESIGN SPEED (MPH)
E CHURCH AVE	CHU	40
E CENTRAL AVE	CEN	35
E AMERICAN AVE	AME	45
G ST (E CHURCH AVE)	GCH	25
OLD E CHURCH AVE (E CHURCH AVE)	OCH	25
S GOLDEN STATE BLVD (E CHURCH AVE)	SGS	50
S CEDAR AVE (E CENTRAL AVE)	CCE	45



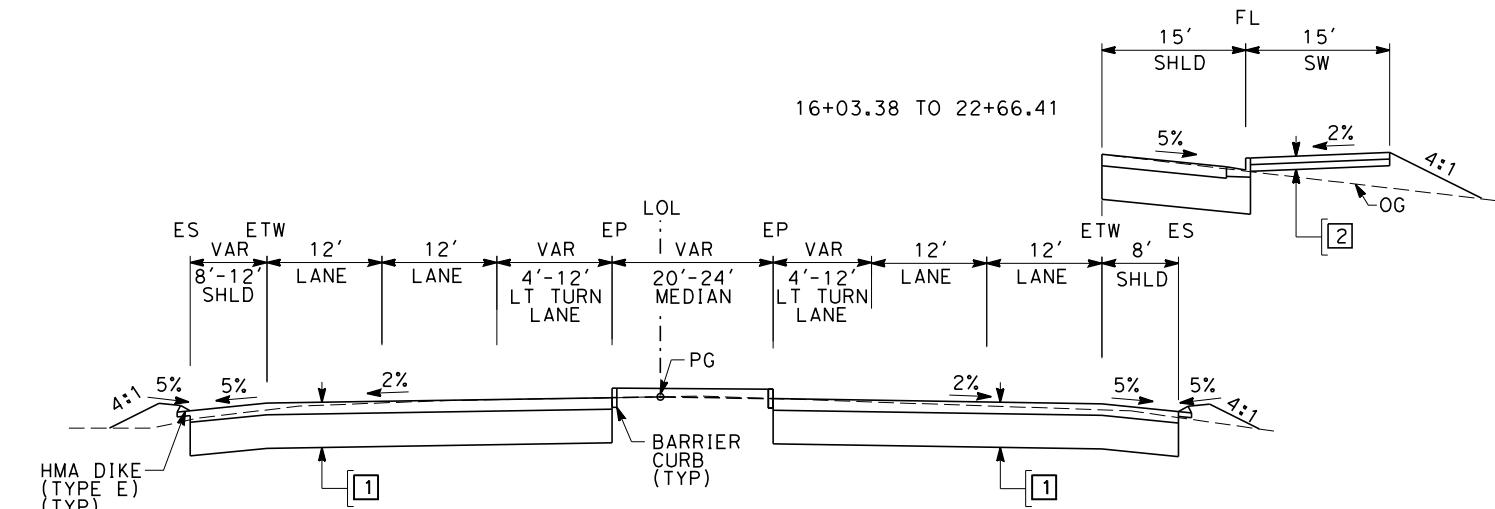
E CHURCH AVE

"CHU" 17+91.16 TO 20+89.37
"CHU" 30+49.37 TO 33+33.55



E CHURCH AV

"CHU" 12+93.39 TO 17+91.1
"CHU" 33+33.55 TO 38+00.0



S GOLDEN STATE BLVD

"SGS" 12±00±00 TO 24±00 00

APPENDUM 3 - RFP HSR 11-16



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
ROADWAY

ROADWAY / GRADE SEPARATION
TYPICAL SECTIONS

CONTRACT NO.
DRAWING NO. CV-T3012
SCALE AS SHOWN
SHEET NO.

STRUCTURAL SECTION

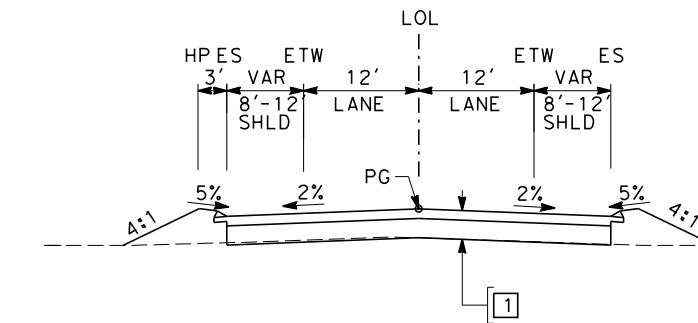
TYPICAL ROADWAY

1 0.50' HMA (TYPE A)

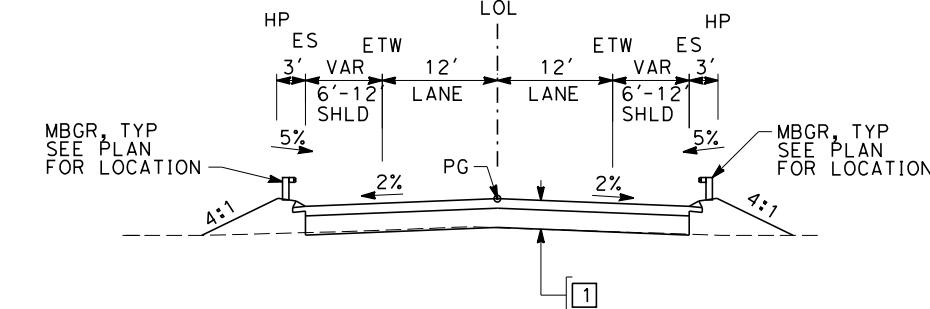
1.50' CL2 AB

2 0.35' PCC

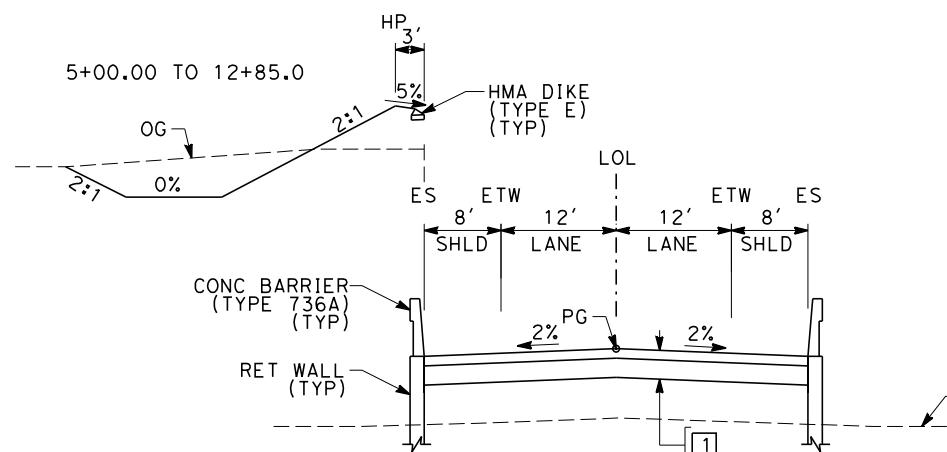
0.35' CL2 AB

**G ST**

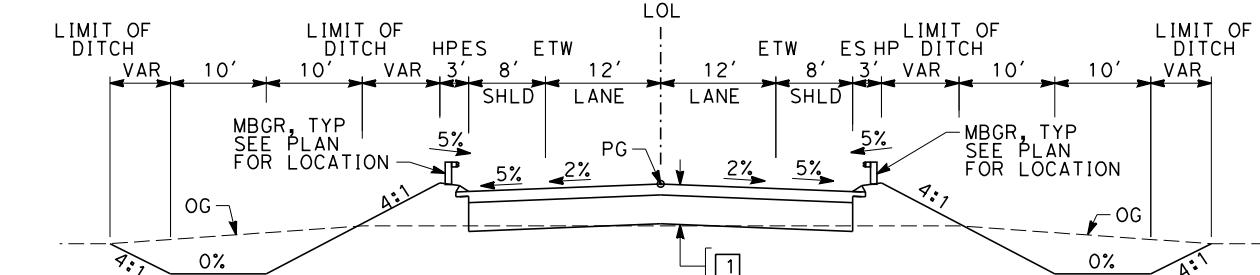
"GCH" 100+00.00 TO 106+87.24

**OLD CHURCH AVE, E CENTRAL AVE, S CEDAR AVE**

"OCH" 104+21.11 TO 106+94.71
 "OCH" 107+95.45 TO 117+13.51
 "CEN" 1+00.00 TO 5+00.00
 "CEN" 25+68.46 TO 27+00.00
 "CCE" 118+00.00 TO 129+54.46

**E CENTRAL AVE**

"CEN" 5+00.00 TO 12+85.10
 "CEN" 19+04.95 TO 25+68.46

**E AMERICAN AVE**

"AME" 11+00.00 TO 23+91.66
 "AME" 27+71.66 TO 40+48.59

ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION

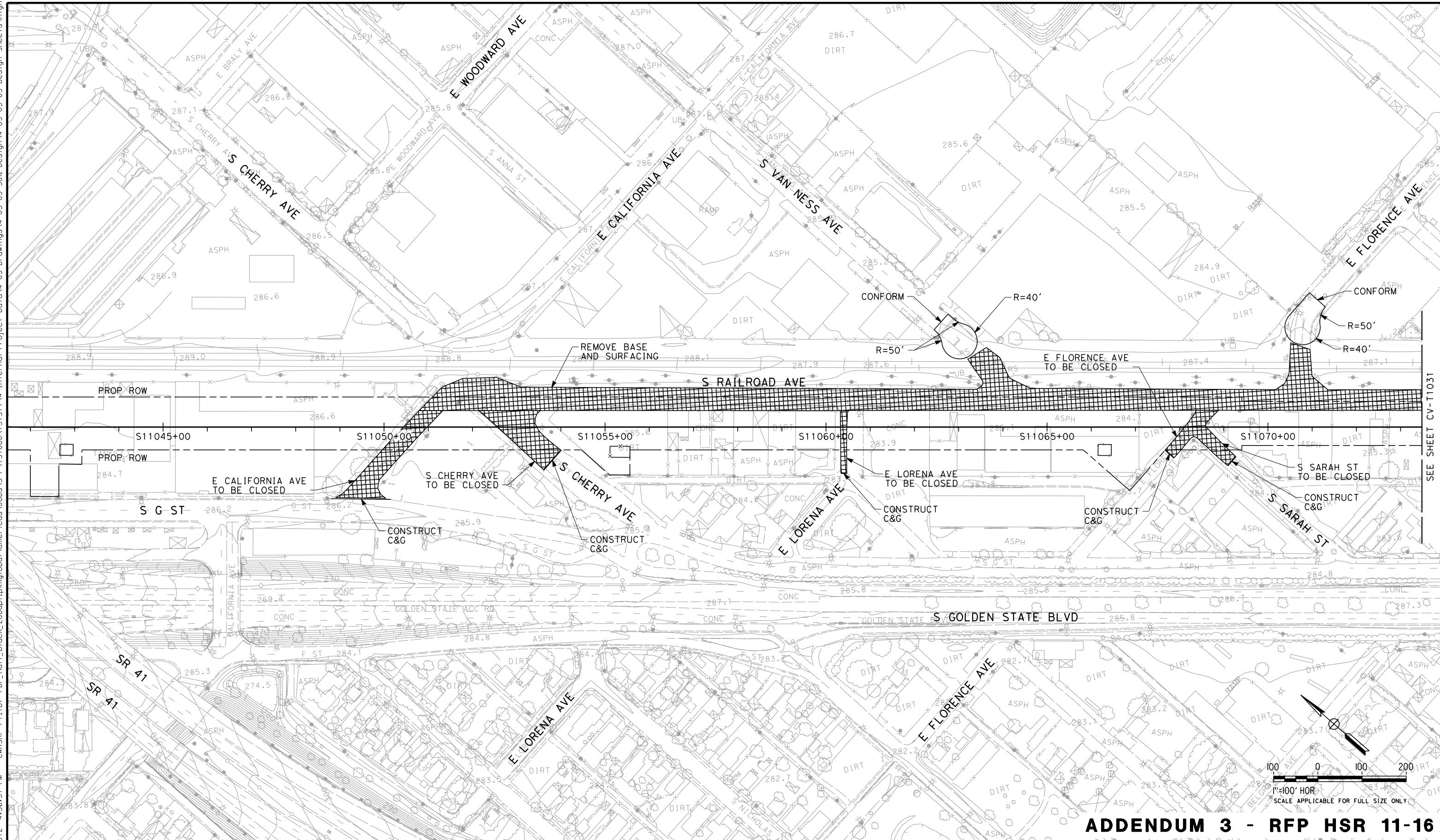
DESIGNED BY
M. Bamm
DRAWN BY
E. Sudhausen
CHECKED BY
S. Burges
IN CHARGE
R. Coffin
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
**NOT FOR
CONSTRUCTION**



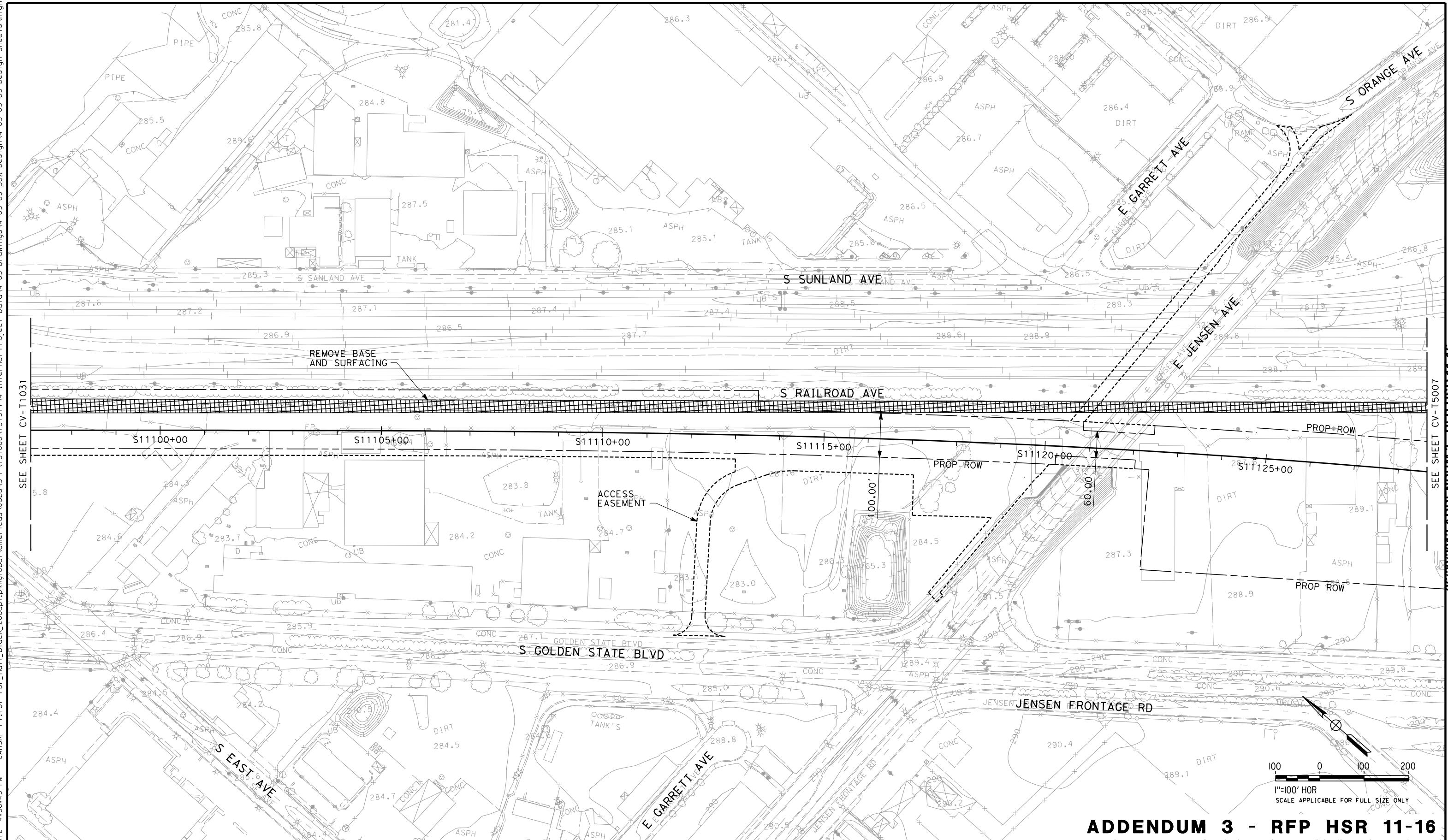
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
ROADWAY
ROADWAY / GRADE SEPARATION
TYPICAL SECTIONS

CONTRACT NO.
DRAWING NO.
CV-T3013
SCALE
AS SHOWN
SHEET NO.



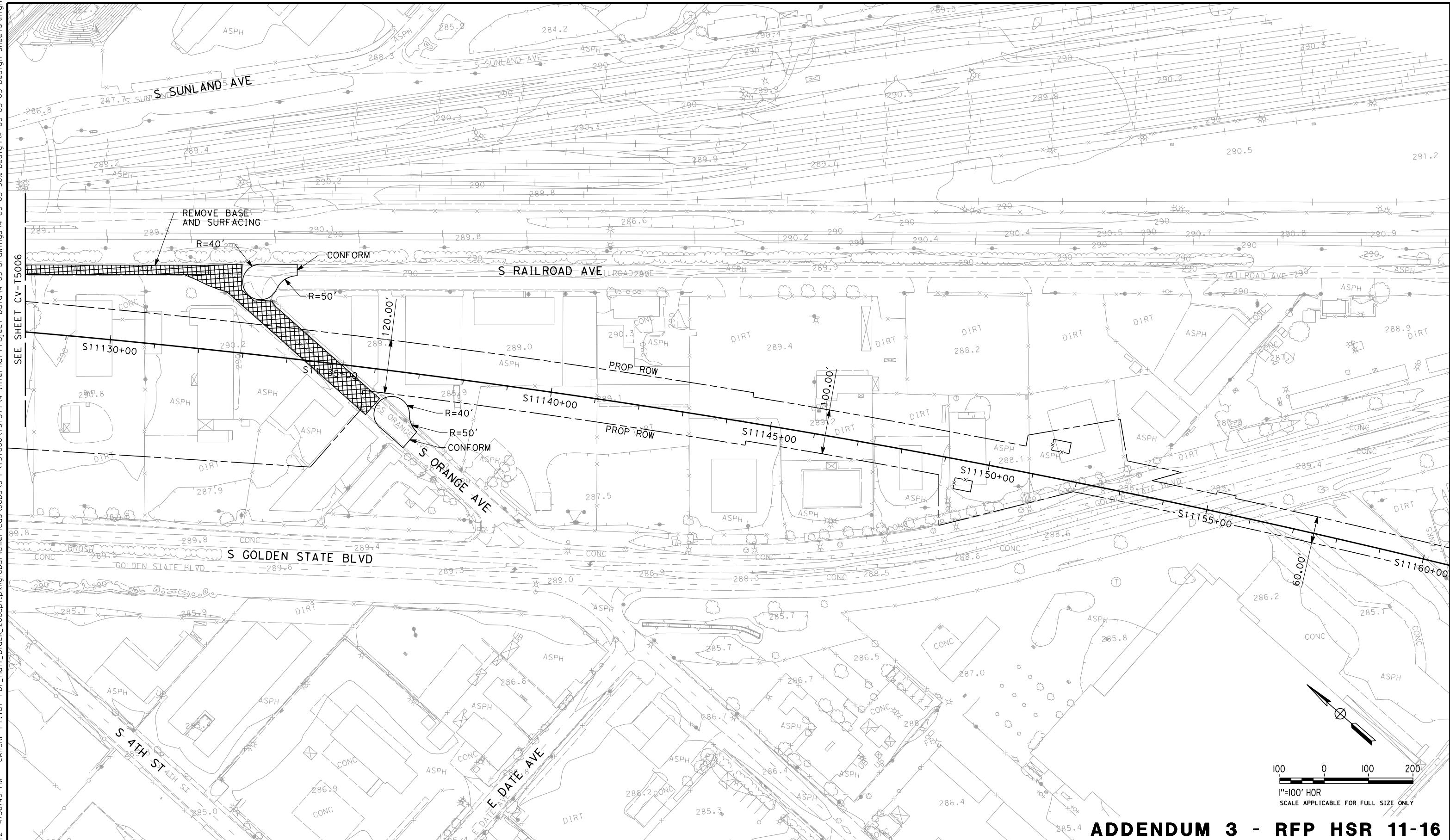
ADDENDUM 3 - RFP HSR 11-16

Detailed description: This banner spans the top of the page. It features the 'California High-Speed Train Project' logo on the left, which includes a stylized map of California with a train track running through it, the text 'URS | HMM | ARUP' above 'CALIFORNIA HIGH-SPEED TRAIN', and the 'CALIFORNIA HIGH-SPEED RAIL AUTHORITY' logo on the right. To the right of the logo is the main title 'CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION'. Below the title are several lines of text: 'PACKAGE 1C', 'ROADWAY', 'ROAD CLOSURE LAYOUT', 'S CHERRY AVE THROUGH E FLORENCE AVE'. On the far right, there are boxes for 'CONTRACT NO.', 'DRAWING NO.', 'SCALE', and 'SHEET NO.'.



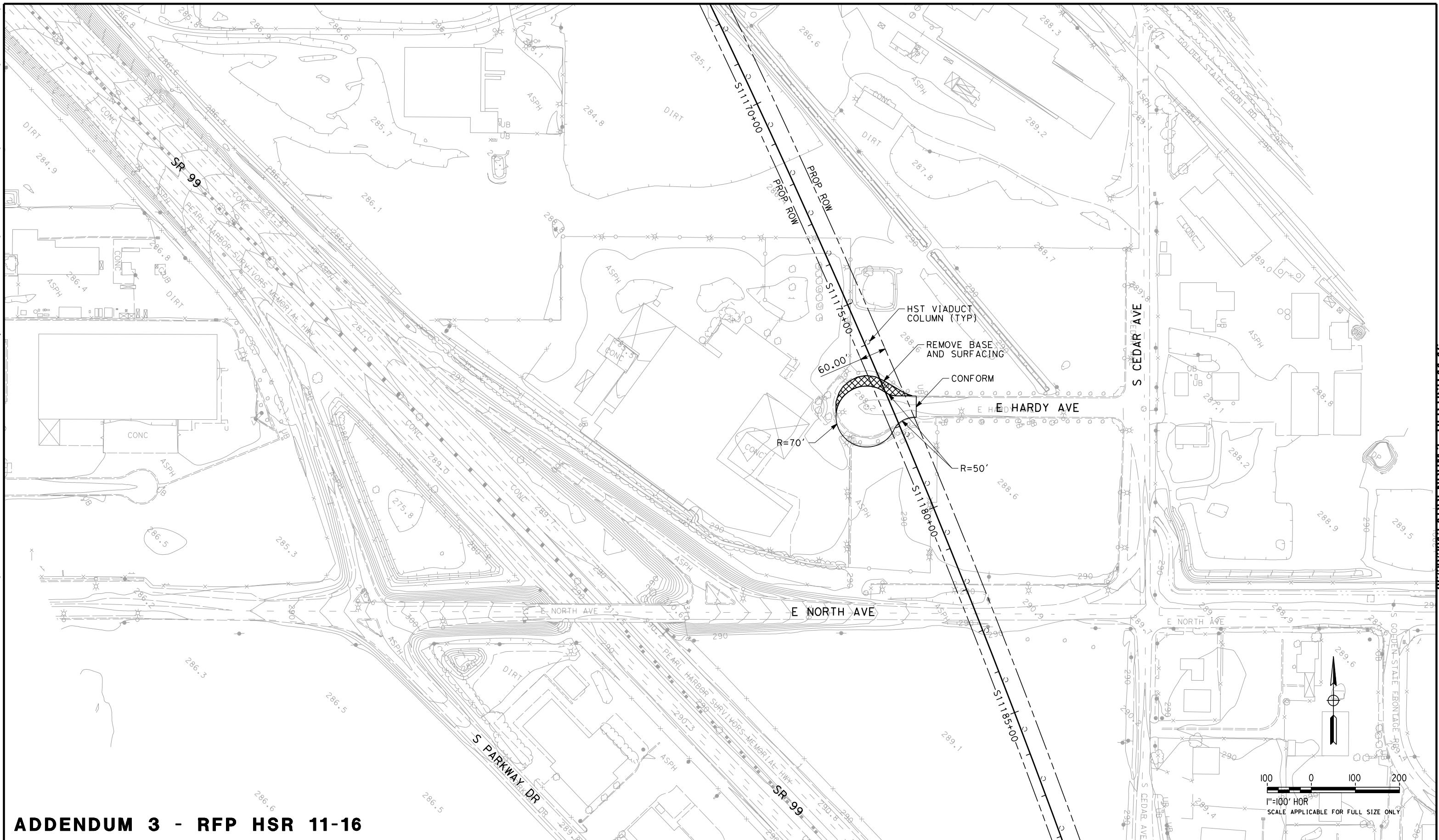
ADDENDUM 3 - RFP HSR 11-16

The logo for the California High-Speed Train Project Sierra Subdivision. It features a circular emblem with a stylized train and the word "CALIFORNIA" below it. To the left is a logo for URS | HMM | ARUP featuring a map of California and the text "URS | HMM | ARUP CALIFORNIA High-Speed Train". To the right is the text "CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C ROADWAY ROAD CLOSURE LAYOUT S RAILROAD AVE". The logo is set against a background of a train track and mountains.

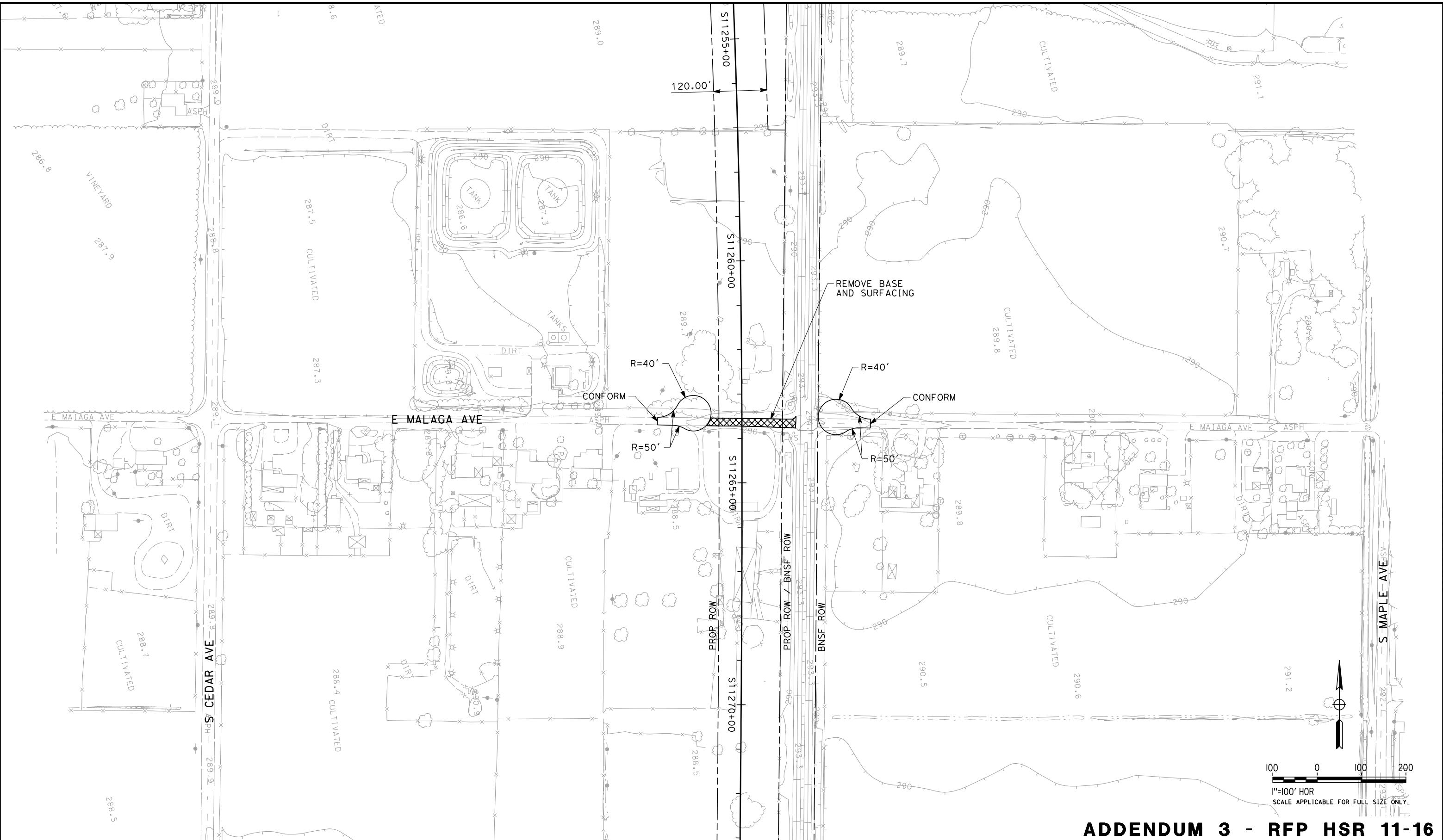


ADDENDUM 3 - RFP HSR 11-16

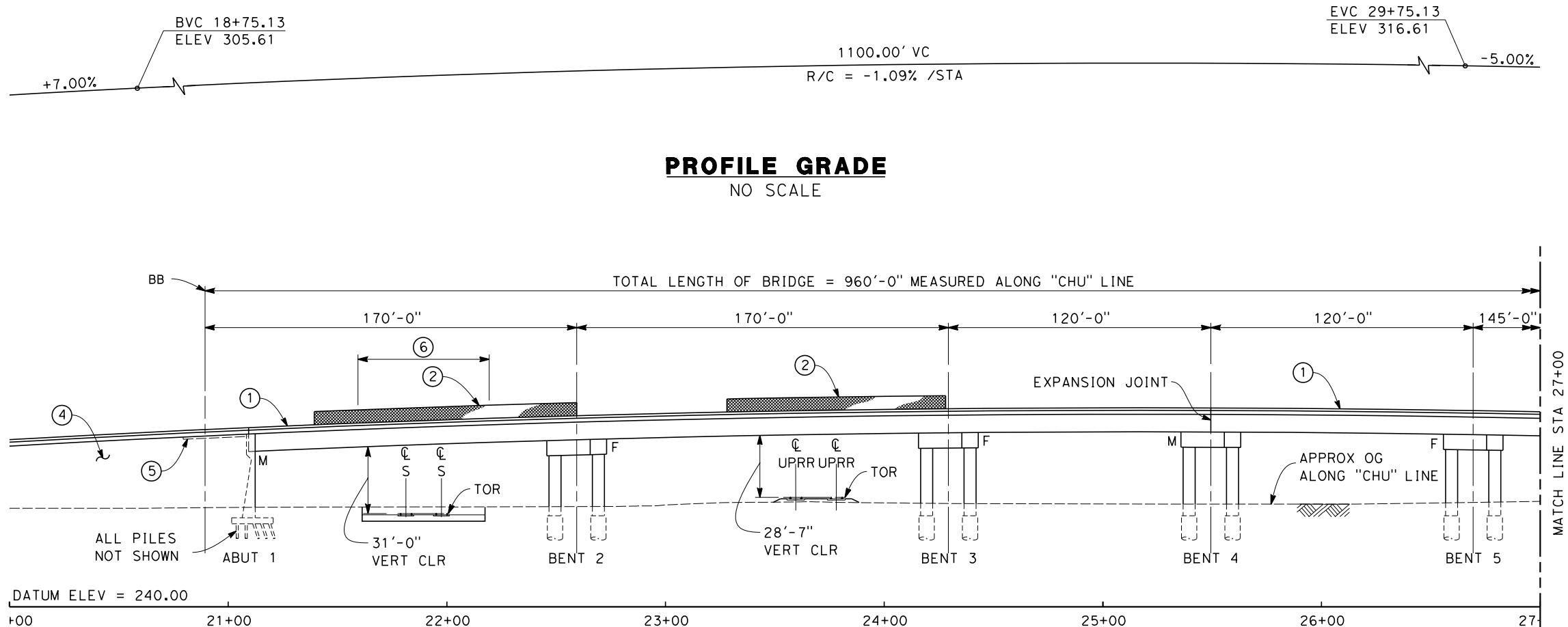
DESIGNED BY M. Bamm	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY E. SUDHAUSEN	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. CV-T5007
CHECKED BY S. BURGES		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN
IN CHARGE R. COFFIN			SHEET NO.
DATE 06/06/12			
REV	DATE	BY	CHK APP
DESCRIPTION			



REV	DATE	BY	CHK	APP	DESCRIPTION	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.
								DRAWING NO. CV-T5008 SCALE AS SHOWN SHEET NO.

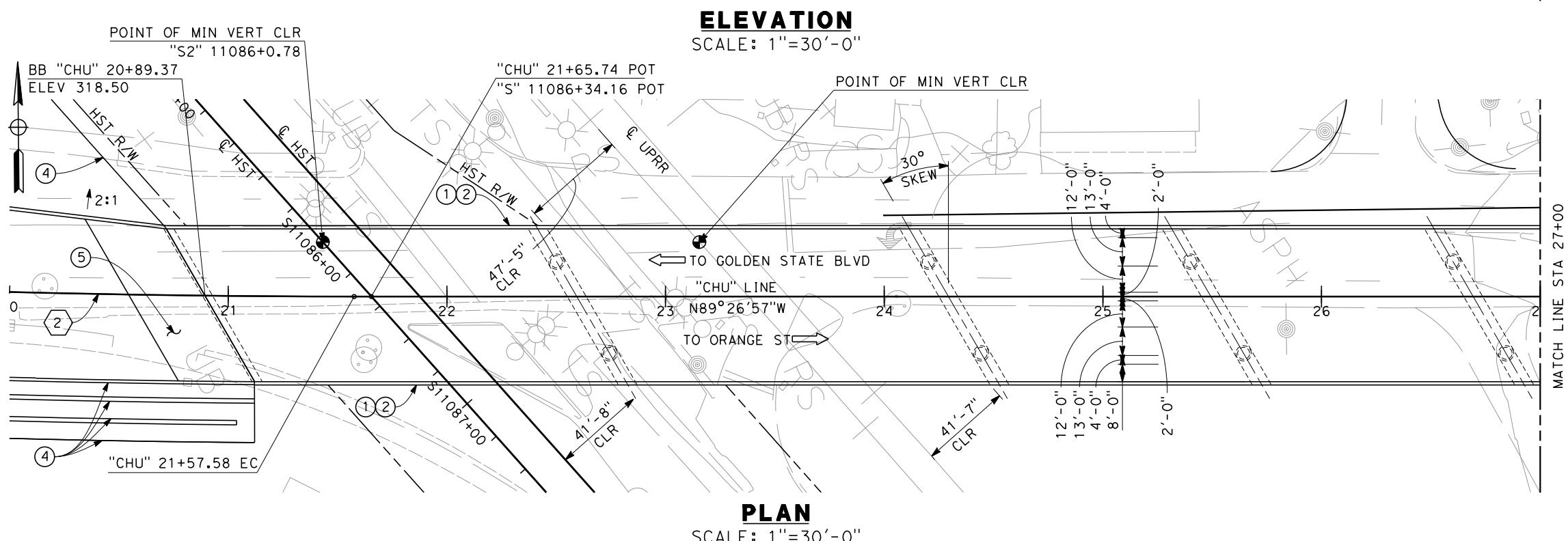


ADDENDUM 3 - RFP HSR 11-16

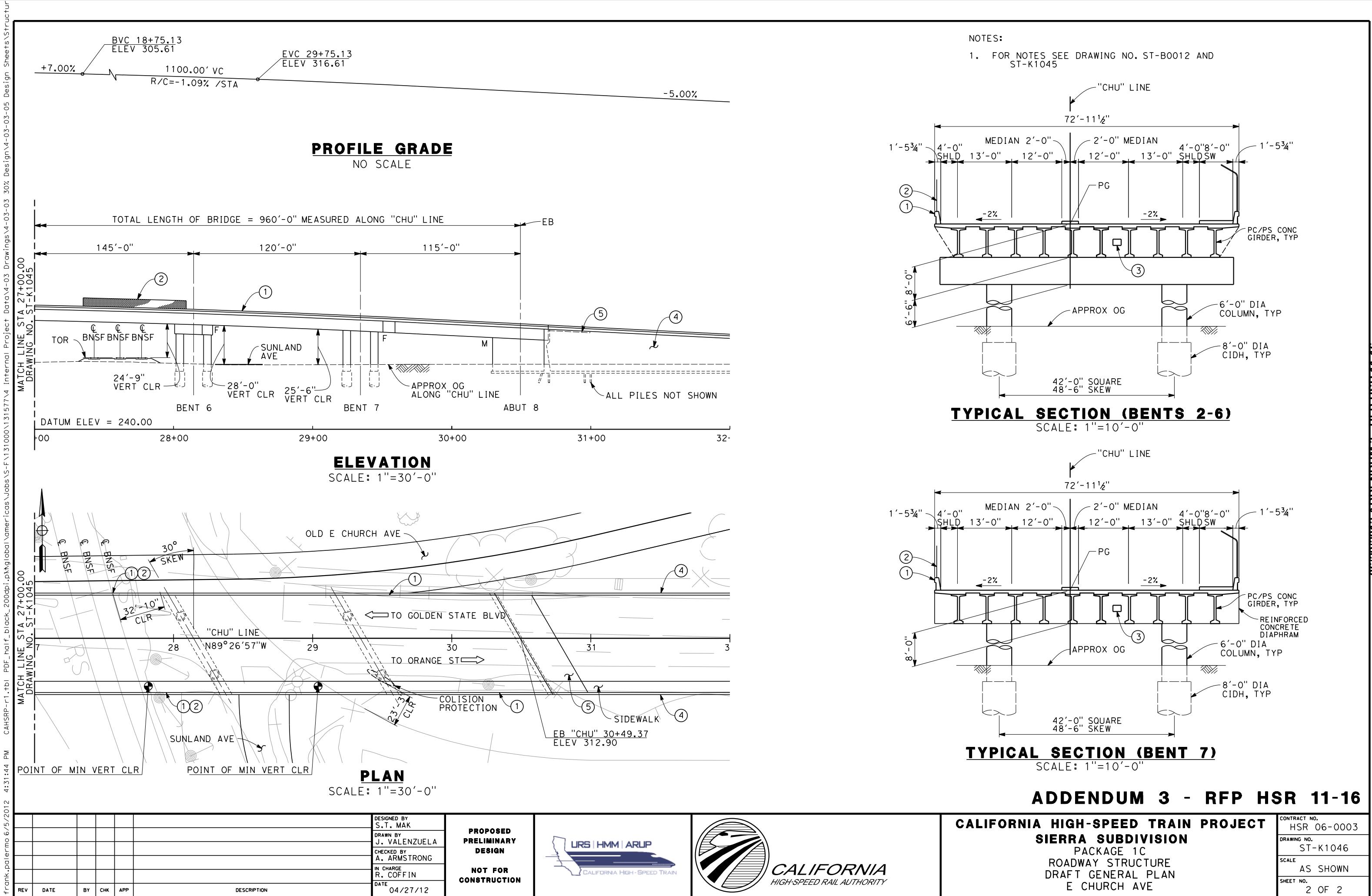


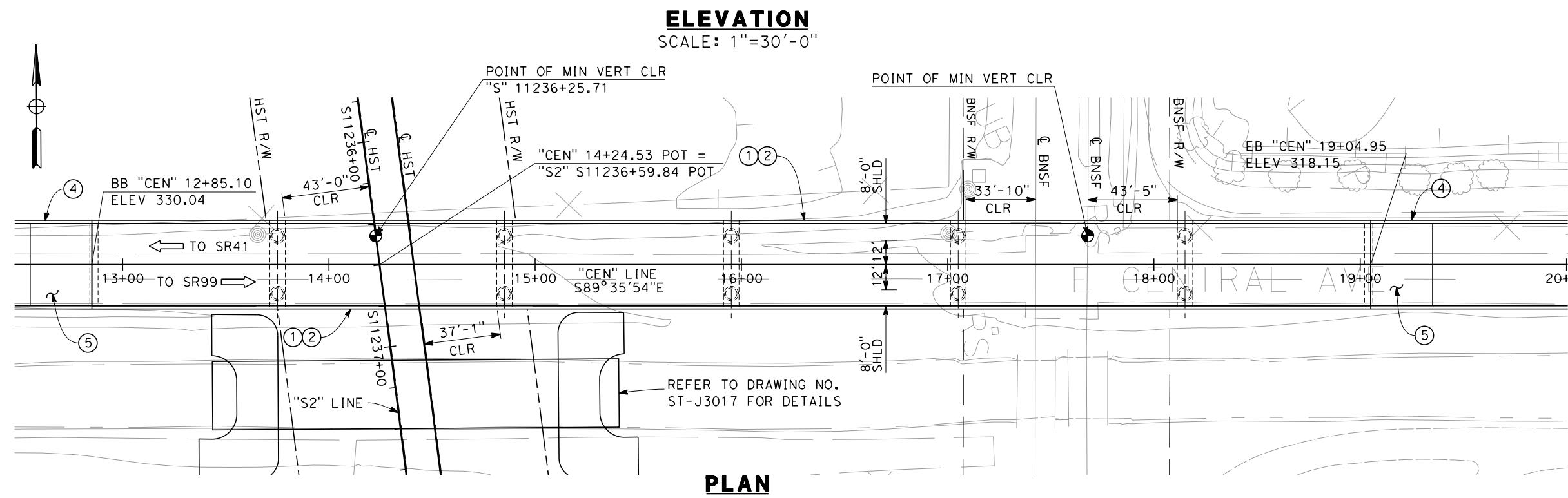
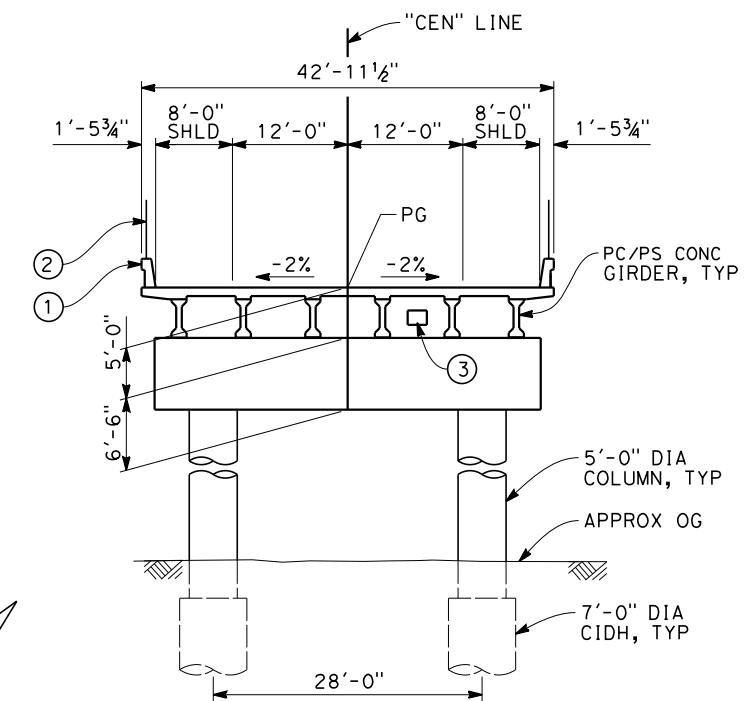
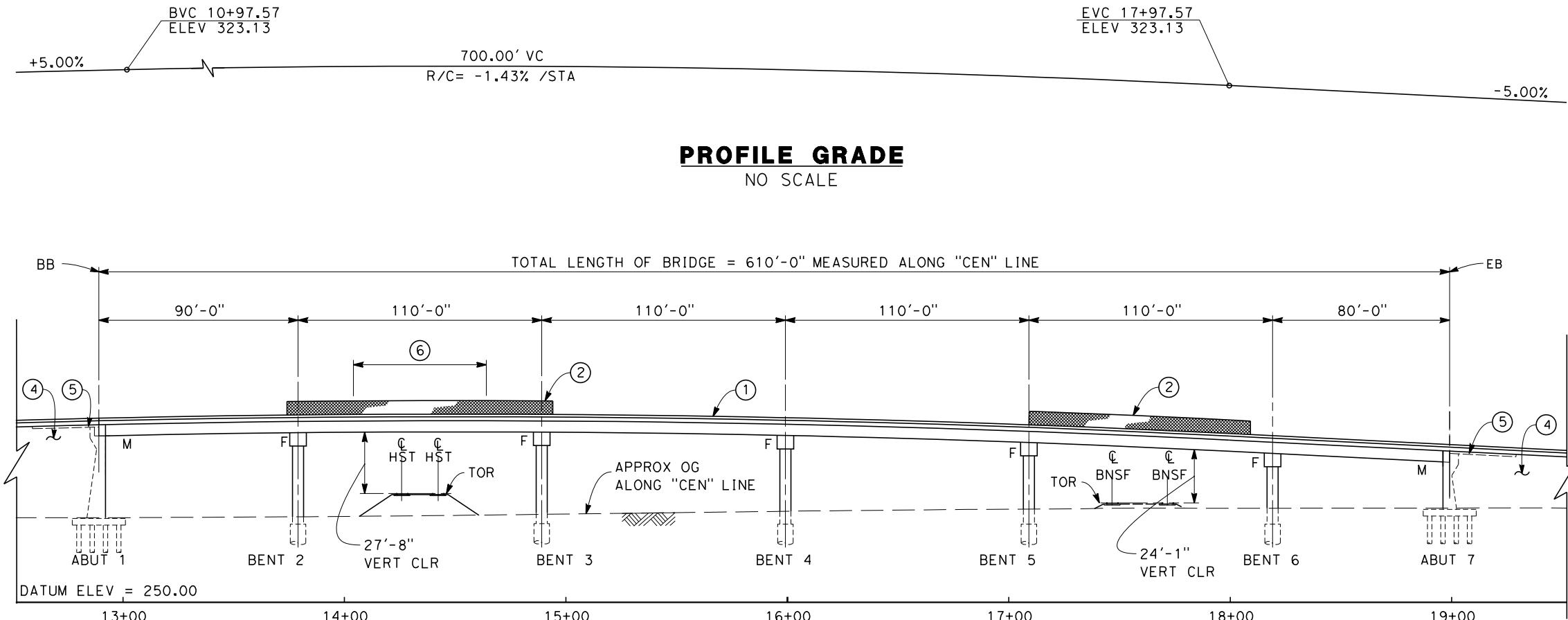
NOTES:

- FOR NOTES SEE DRAWING NO. ST-B0012
- CONCRETE BARRIER (TYPE 736 MODIFIED)
- AR FENCE
- FUTURE UTILITY OPENING
- RETAINING WALL, TYPE TO BE DETERMINED
- STRUCTURE APPROACH SLAB
- SOLID PLATE

**ADDENDUM 3 - RFP HSR 11-16**

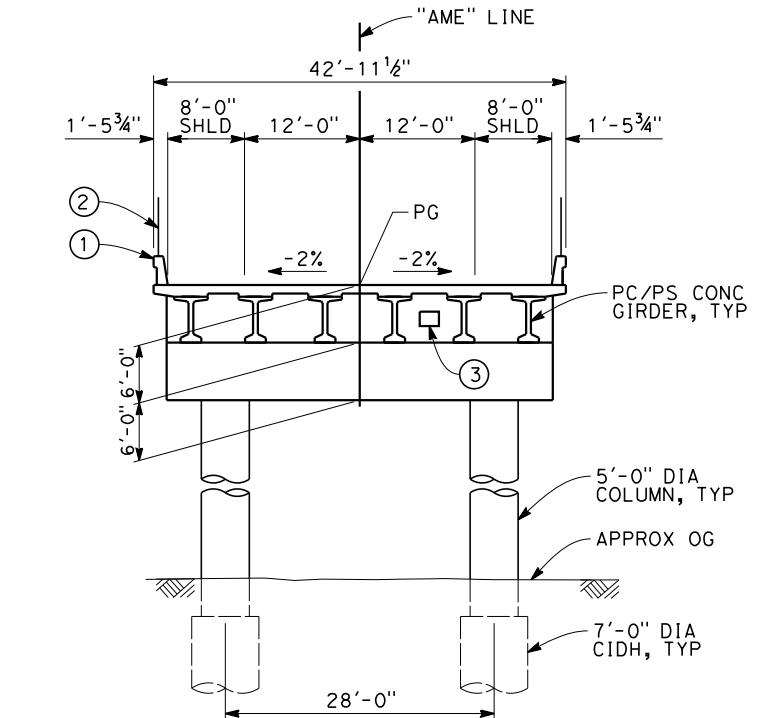
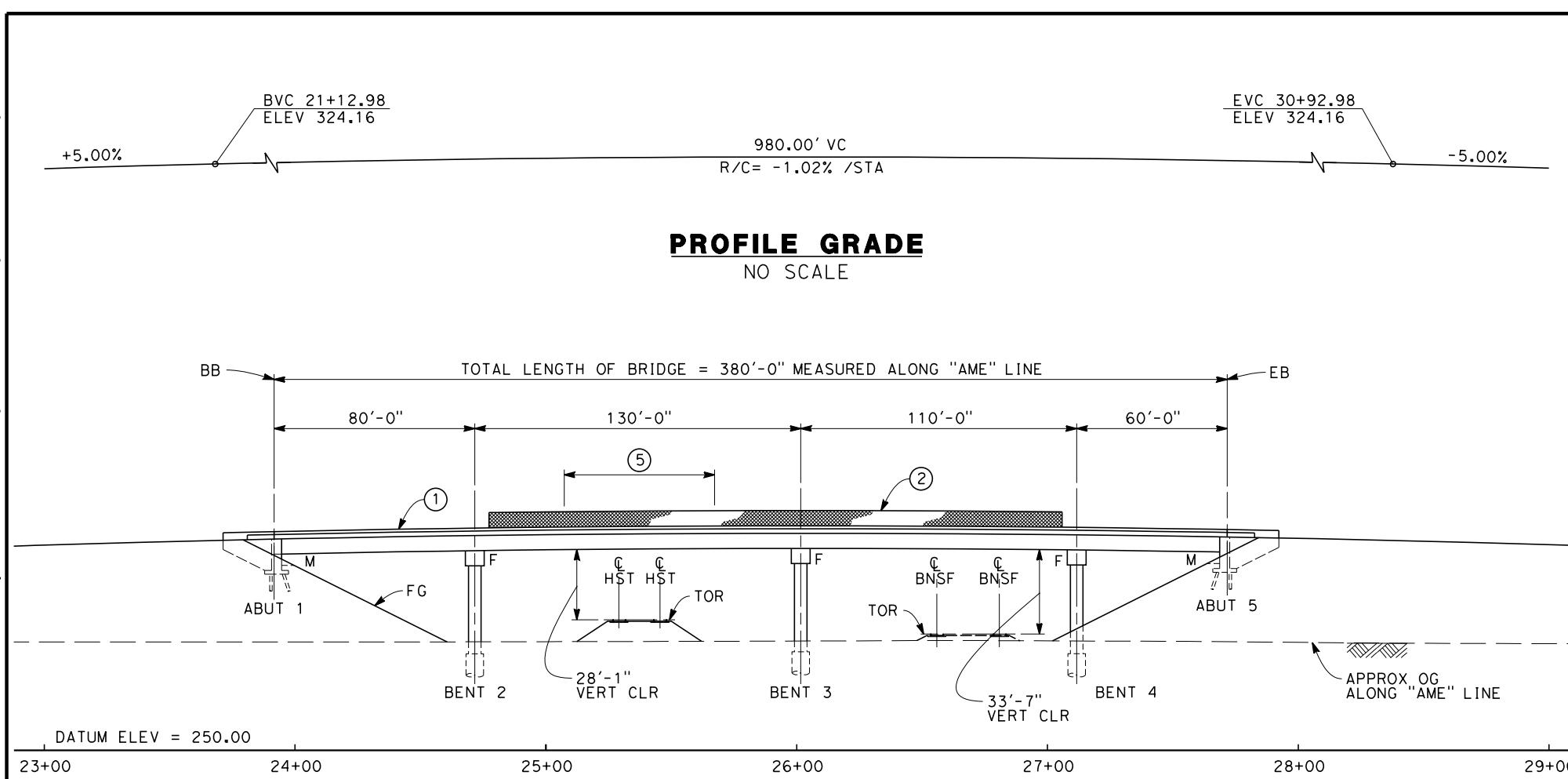
DESIGNED BY S.T. MAK	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C ROADWAY STRUCTURE DRAFT GENERAL PLAN E CHURCH AVE	CONTRACT NO. HSR 06-0003				
DRAWN BY J. VALENZUELA	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. ST-K1045				
CHECKED BY A. ARMSTRONG		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN				
IN CHARGE R. COFFIN			SHEET NO. 1 OF 2				
DATE 04/27/12	DESCRIPTION						
REV	DATE	BY	CHK	APP			



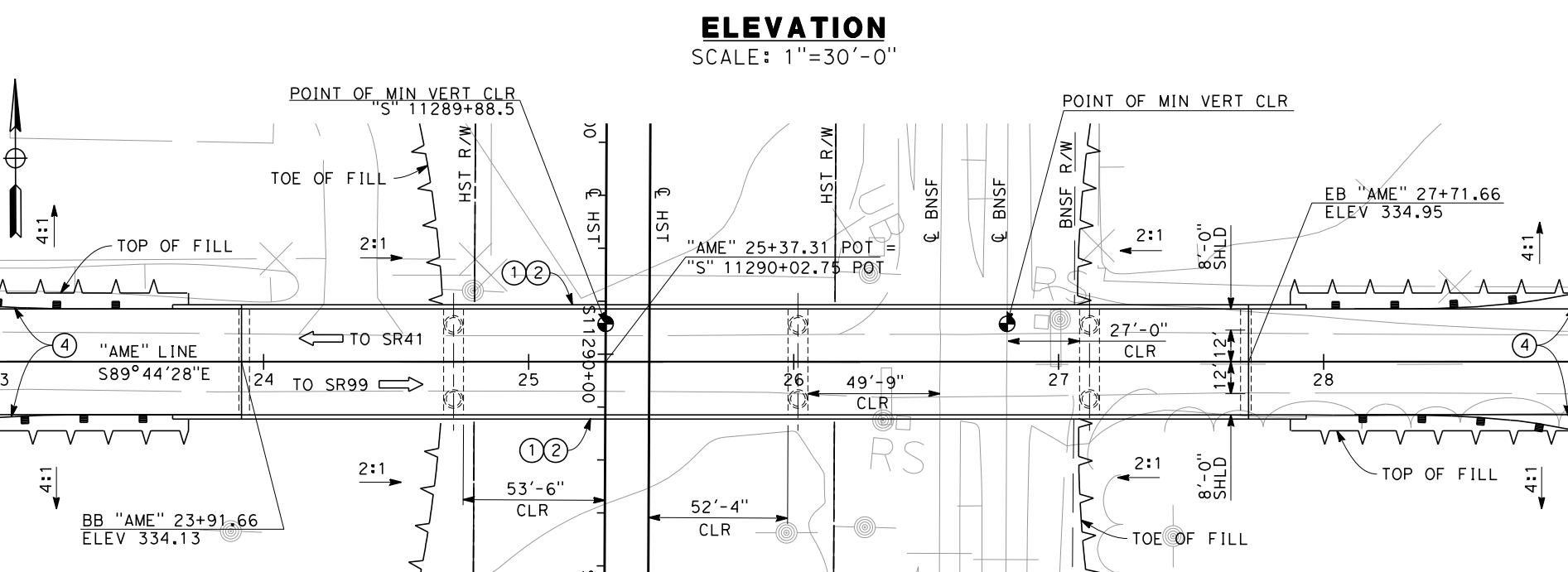


ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY S.T. MAK	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY J. VALENZUELA	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. ST-K1047
CHECKED BY A. ARMSTRONG		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN
IN CHARGE R. COFFIN			SHEET NO.
DATE 06/06/12	DESCRIPTION 06/06/12		



TYPICAL SECTION
SCALE: 1"=10'-0"



- NOTES:
1. FOR NOTES SEE DRAWING NO. ST-B0012
 - ① CONCRETE BARRIER (TYPE 736 MODIFIED)
 - ② AR FENCE
 - ③ FUTURE UTILITY OPENING
 - ④ MBGR (SEE ROAD PLANS)
 - ⑤ SOLID PLATE

PLAN
SCALE: 1"=30'-0"

				DESIGNED BY S.T. MAK	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
				DRAWN BY J. VALENZUELA				DRAWING NO.
				CHECKED BY A. ARMSTRONG				ST-K1048
				IN CHARGE R. COFFIN	NOT FOR CONSTRUCTION			SCALE
				DATE 06/06/12				AS SHOWN
REV	DATE	BY	CHK	APP	DESCRIPTION			SHEET NO.



ADDENDUM 3 - RFP HSR 11-16

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1C
ROADWAY STRUCTURE
DRAFT GENERAL PLAN
E AMERICAN AVE

VOLUME 4 - UTILITIES

DRAWING No	DRAWING DESCRIPTION
GE-A0018	PACKAGE 1C - UTILITIES - INDEX OF DRAWINGS
UT-B0018	PACKAGE 1C - UTILITIES - GENERAL NOTES
UT-B0019	PACKAGE 1C - UTILITIES - LEGEND, SYMBOLS & ABBREVIATIONS
UT-B0020	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - KEY PLAN
UT-C4060	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11030+00 TO 11045+00
UT-C4061	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11045+00 TO 11060+00
UT-C4062	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11060+00 TO 11075+00
UT-C4063	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E CHURCH AVE
UT-C4064	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11090+00 TO 11105+00
UT-C4065	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11105+00 TO 11120+00
UT-C4066	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11120+00 TO 11135+00
UT-C4067	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11135+00 TO 11150+00
UT-C4068	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11150+00 TO 11165+00
UT-C4069	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11165+00 TO 11180+00
UT-C4070	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11180+00 TO 11195+00
UT-C4071	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11195+00 TO 11210+00
UT-C4072	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11210+00 TO 11225+00
UT-C4073	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E CENTRAL AVE
UT-C4074	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11240+00 TO 11255+00
UT-C4075	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11255+00 TO 11270+00
UT-C4076	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - STA. 11270+00 TO 11285+00
UT-C4077	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E AMERICAN AVE
UT-C4078	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E CALIFORNIA AVE
UT-C4079	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E CALIFORNIA AVE / S E AVE
UT-C4080	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - S E AVE
UT-C4081	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E CHURCH AVE
UT-C4082	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E CHURCH AVE
UT-C4083	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - S E AVE
UT-C4084	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E JENSEN AVE
UT-C4085	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E CENTRAL AVE
UT-C4086	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E CENTRAL AVE
UT-C4087	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E AMERICAN AVE
UT-C4088	PACKAGE 1C - UTILITIES - COMPOSITE UTILITY PLAN - E AMERICAN AVE

VOLUME 4 - UTILITIES - CONT'D

DRAWING No	DRAWING DESCRIPTION
CV-B0021	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - KEY MAP
CV-G1018	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11030+00 TO 11058+00
CV-G1019	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11058+00 TO 11086+00
CV-G1020	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11086+00 TO 11114+00
CV-G1021	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11114+00 TO 11142+00
CV-G1022	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11142+00 TO 11170+00
CV-G1023	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11170+00 TO 11198+00
CV-G1024	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11198+00 TO 11226+00
CV-G1025	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11226+00 TO 11254+00
CV-G1026	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11254+00 TO 11282+00
CV-G1027	PACKAGE 1C - UTILITIES - GRADING AND DRAINAGE - STA. 11282+00 TO 11300+00

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY G. SCHLERETH	PROPOSED PRELIMINARY DESIGN	URS HMM ARUP 			
DRAWN BY J. BORGHESI	NOT FOR CONSTRUCTION	 CALIFORNIA HIGH-SPEED RAIL AUTHORITY			
CHECKED BY S. BURGES					
IN CHARGE R. COFFIN					
DATE 06/06/12					
REV	DATE	BY	CHK	APP	DESCRIPTION

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
INDEX OF DRAWINGS

CONTRACT NO.
DRAWING NO.
GE-A0018
SCALE
NO SCALE
SHEET NO.

GENERAL NOTES:

1. ALL MATERIAL AND WORK TO BE CONSTRUCTED AS SHOWN HERE ON THESE PLANS SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS AND DETAILS OF THE CITY OF FRESNO, FRESNO METROPOLITAN FLOOD CONTROL DISTRICT (FMFCD), FRESNO IRRIGATION DISTRICT (FID), AND THE LATEST EDITION OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND PLANS.
2. CONTRACTOR SHALL FOLLOW THE PROJECT REQUIREMENTS CONTAINED IN THE SPECIFICATIONS AND PROJECT SPECIAL PROVISIONS. CONTRACTOR SHALL MAINTAIN A COPY OF THE SPECIFICATIONS AND APPROVED PROJECT PLANS AND SPECIAL PROVISIONS AT THE JOB SITE AT ALL TIMES.
3. CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY FROM APPLICABLE AGENCIES TO PERFORM THE WORK SHOWN ON THESE PLANS PRIOR TO COMMENCING WORK.
4. CONTRACTOR SHALL NOTIFY THE CITY OF FRESNO, FMFCD, FID, PG&E, AT&T AND OTHER UTILITY ENTITIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF PARTICULAR WORK RELATIVE TO THE UTILITY AGENCY HAVING JURISDICTION.
5. CONTRACTOR SHALL INFORM THE UTILITY AGENCY HAVING JURISDICTION AT LEAST THREE (3) WORKING DAYS PRIOR TO WHEN WORK REQUIRING SPECIAL INSPECTION IS AVAILABLE FOR INSPECTION. ALL WORK PERFORMED WITHOUT REQUIRED INSPECTION OR NOTIFICATION IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE DIRECTION OF THE AUTHORITY AT THE CONTRACTOR'S EXPENSE WITH NO IMPACT TO THE PROJECT SCHEDULE.
6. CONTRACTOR SHALL COORDINATE ALL NECESSARY UTILITY RELOCATIONS, OR ANY WORK INVOLVING UTILITIES, WITH THE APPROPRIATE UTILITY AGENCIES.
7. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT 811 AT LEAST TEN (10) DAYS PRIOR TO START OF CONSTRUCTION AND AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE START OF ANY EXCAVATION.
8. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATION BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS HAVE NOT BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATIONS AND DEPTHS OF ANY UNDERGROUND UTILITIES OR STRUCTURES WITHIN THE LIMITS OF THE PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, PROTECT AND MAINTAIN ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE PROJECT. ANY ADDITIONAL COSTS INCURRED AS A RESULTS OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR.
9. CONTRACTOR SHALL PROVIDE 24 HOUR EMERGENCY TELEPHONE NUMBERS TO THE CITY OF FRESNO POLICE DEPARTMENT, FIRE DEPARTMENT AND THE CITY ENGINEER AND NOTIFY THEM OF ANY LANE CLOSURES OR DETOURS. DETOURS SHALL NOT BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY ENGINEER.
10. CONTRACTOR SHALL PROVIDE AND MAINTAIN SUFFICIENT SAFETY DEVICES INCLUDING BARRICADES, FENCING, WARNING SIGNS, LIGHTS OR FLAGGERS TO PROVIDE FOR THE SAFETY OF THE GENERAL PUBLIC WITHIN THE PROJECT AREA, TO THE SATISFACTION OF THE CITY ENGINEER. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
11. CONTRACTOR SHALL PROVIDE ONE (1) COMPLETE SET OF AS-BUILT DRAWINGS WITH CHANGES INDICATED IN RED INK ON FULL-SIZE DRAWINGS. AS-BUILTS SHALL BE DELIVERED TO THE AUTHORITY'S REPRESENTATIVE AT THE COMPLETION OF WORK PRIOR TO FINAL PROGRESS PAYMENT.
12. THE CONTRACTOR SHALL BE REQUIRED TO KEEP ALL CONSTRUCTION ACTIVITIES WITHIN THE PUBLIC RIGHT-OF-WAY AND EASEMENT OBTAINED FOR THE PROJECT UNLESS OTHERWISE SHOWN. THIS SHALL INCLUDE, BUT NOT LIMITED TO: VEHICLES AND EQUIPMENT, LIMITS OF TRENCH EXCAVATIONS, STOCKPILED NEW MATERIAL, EXCAVATED MATERIAL AND BACKFILL MATERIAL.

SPECIAL NOTES FOR WATER AND SEWER:

1. CONTRACTOR SHALL LOCATE, PROTECT AND RECONNECT ALL EXISTING WATER AND SEWER SERVICE LATERALS TO NEW WATER AND SEWER MAINS.
2. CONTRACTOR SHALL RELOCATE EXISTING WATER METERS TO EDGE OF NEW ROADWAYS IN ACCORDANCE WITH CITY OF FRESNO WATER STANDARD DRAWINGS.
3. WATER MAIN HUNG ON OR SUPPORTED BY BRIDGE STRUCTURES SHALL BE CIP.

APPLICABLE STANDARD PLANS

CITY OF FRESNO STANDARD DRAWINGS:

PUBLIC WORKS STANDARD DRAWINGS

WATER STANDARD DRAWINGS

SEWER STANDARD DRAWINGS

ELECTRICAL STANDARD DRAWINGS

ALTERNATE PUBLIC IMPROVEMENT DRAWINGS

INTELLIGENT TRANSPORTATION SYSTEM STANDARD DRAWINGS

FRESNO METROPOLITAN FLOOD CONTROL DISTRICT STANDARD DRAWINGS:

A-1 THRU A-9

B-1 THRU B-7

C-1

D-1 THRU D-9

E-1 THRU E-8

F-1 THRU F-4

G-1 THRU G-10

FRESNO IRRIGATION DISTRICT ENGINEERING HANDBOOK OF SPECIFICATIONS AND DRAWINGS:

PAGES 12 THRU 59

SPECIAL NOTE FOR UTILITY DATA:

THE LOCATION OF EXISTING UTILITIES ARE BASED ON TWO SOURCES:

- 1.) TOPOGRAPHIC SURVEY
- 2.) G.I.S.

THE CONTRACTOR SHALL CONDUCT HIS/HER OWN SURVEY AND VERIFY THE LOCATION OF EXISTING UTILITIES AND RECONCILE THE SURVEY DATA AND GIS DATA.

SPECIAL NOTE FOR FUTURE STORM DRAIN LINES:

ALL FUTURE SD LINES ANNOTATED AS 'FUTURE (BY OTHERS)' ARE NOT IN CONTRACT AND ARE SHOWN FOR INFORMATION ONLY. COORDINATE WITH FMFCD FOR FUTURE SD LINES CROSSING THE HST ROW AND PROVIDE CASING FOR FUTURE SD LINES. CASING INVERT ELEVATIONS AND SLOPES SHALL BE DETERMINED BY FMFCD.

ADDENDUM 3 - RFP HSR 11-16

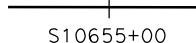
				DESIGNED BY C. ALLEN		PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED RAIL AUTHORITY
				DRAWN BY C. DOEHNE		NOT FOR CONSTRUCTION			
				CHECKED BY M. POLISCHUK					
				IN CHARGE J. LABANOWSKI					
REV	DATE	BY	CHK	APP	DESCRIPTION	DATE	06/06/12		

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
GENERAL NOTES

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO.

UT-B0018
NO SCALE
06/06/12

LEGENDS AND SYMBOLS

<u>EXISTING</u>	<u>NEW</u>	<u>DESCRIPTION</u>
—e— (oh)—		ELECTRICAL OVERHEAD LINE
—e— e—		ELECTRICAL UNDERGROUND LINE
—g— g—	—G— G—	NATURAL GAS LINE
—irr— irr—		IRRIGATION LINE
—o— o—	—o— o—	OIL LINE
—sd— sd—	—SD— SD—	STORM DRAIN LINE
—s— s—	—S— S—	SEWER LINE
—tc— (oh)—		TELECOMMUNICATION OVERHEAD LINE
—tc— tc—		TELECOMMUNICATION LINE
—w— w—	- —W— W—	WATER LINE
—t— t—	—T— T—	TELEPHONE LINE
—tv— (oh)—		TELEVISION OVERHEAD LINE
—tv— tv—		TELEVISION LINE
—fo— fo—	—FO— FO—	FIBER OPTIC LINE
⊕	⊕	SEWER MANHOLE
⊕	⊕	STORM DRAIN MANHOLE
+○+	+○+	FIRE HYDRANT
		NORTH ARROW
— - - - -		RIGHT-OF-WAY
 S10655+00		HST TRACK CENTER LINE
		UTILITY TO BE REMOVED OR RELOCATED

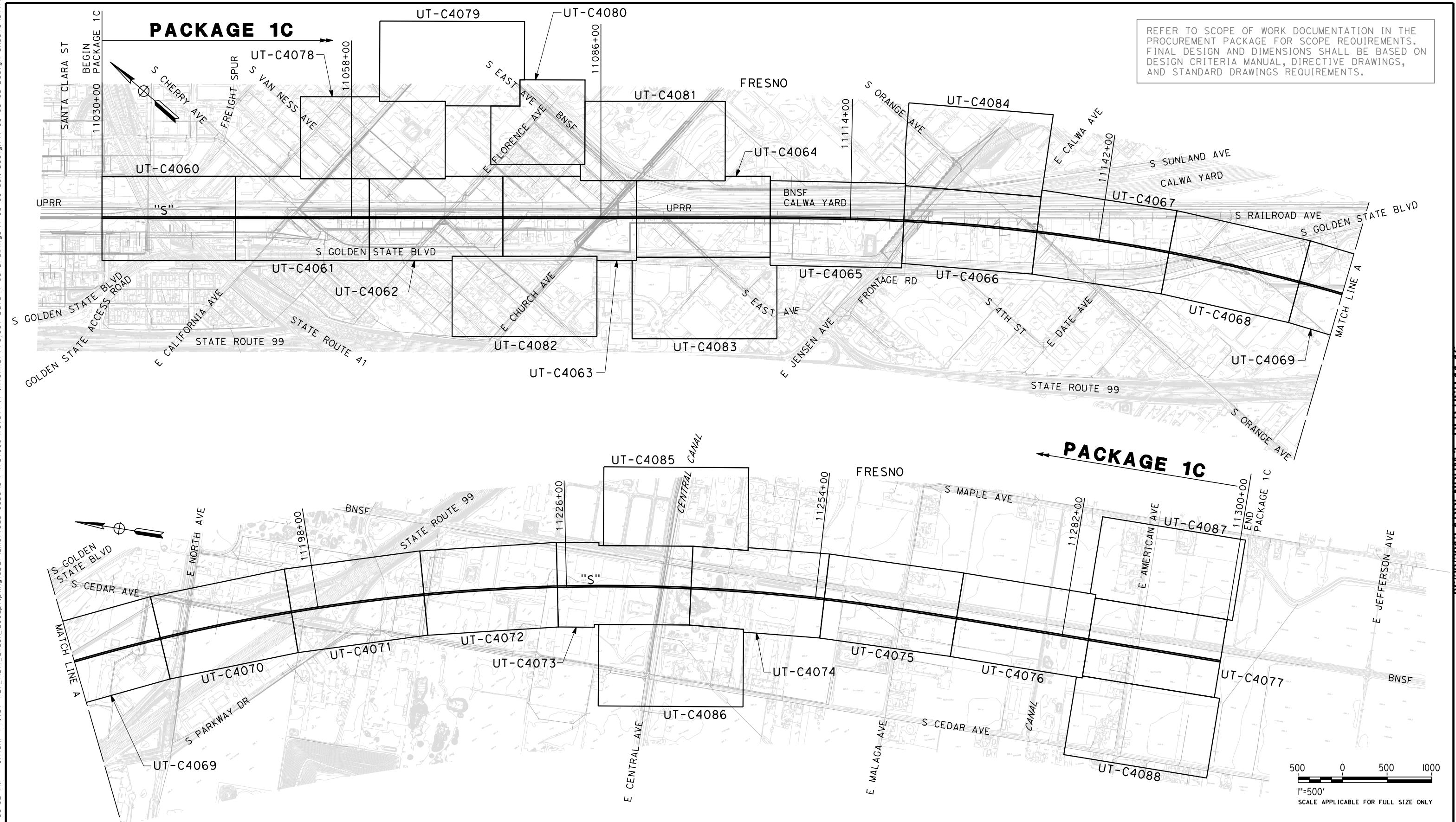
ABBREVIATIONS

AB	AGGREGATE BASE	HOR	HORIZONTAL
ABN	ABANDON		
AC	ASPHALT CONCRETE	IN	INCH
ACB	ASPHALT CONCRETE BASE	INV	INVERT
ACP	ASBESTOS CEMENT PIPE	IRR	IRRIGATION
A/G	AT GRADE		
APPROX	APPROXIMATE	L	LENGTH
AVE	AVENUE	LED	LIGHT EMITTING DIODE
BCR	BEGIN CURVE RETURN	LG	LIP OF GUTTER
BEG	BEGIN	LS	LANDSCAPE
BLDG	BUILDING	LT	LEFT
BLVD	BOULEVARD		
B.O.	BLOW-OFF	MIN	MINIMUM
BOC	BACK OF CURB	N	NORTH, NORTHING, NEW
BSW	BACK OF SIDEWALK	NIC, N.I.C.	NOT IN CONTRACT
BVCE	BEGIN VERTICAL CURVE ELEVATION	NO	NUMBER
BVCS	BEGIN VERTICAL CURVE STATION	N.T.S.	NOT TO SCALE
CB	CATCH BASIN	(P)	PROPOSED
CD	CURB DRAIN	PCC	PORTLAND CEMENT CONCRETE
C&G	CURB AND GUTTER	PRKG	PARKING
CH	CURB HEIGHT	PVC	POLYVINYL CHLORIDE
CIP	CAST IRON PIPE	PVMT	PAVEMENT
CL	CENTERLINE		
CMP	CORRUGATED METAL PIPE	R	RADIUS
COF	CITY OF FRESNO	RCP	REINFORCED CONCRETE PIPE
CTV	CABLE TELEVISION	REQ'D	REQUIRED
CV	CURVE	R/R	REMOVE AND REPLACE/RELOCATE
D	DEPTH	RT	RIGHT
DI	DRAINAGE INLET	R/W, ROW	RIGHT OF WAY
DIA	DIAMETER		
DIP	DUCTILE IRON PIPE	S	SLOPE, SOUTH, SEWER
DWG	DRAWING	SD	STORM DRAIN
E	ELECTRICAL, ELECTRIC	SDMH	STORM DRAIN INLET
E	EAST, EXISTING	SF	STORM DRAIN MANHOLE
EC	END HORIZONTAL CURVE	SHLD	SQUARE FEET
EDG	EDGE	SR	SHOULDER
EL OR ELEV	ELEVATION	SS	STATE ROUTE
ELEC	ELECTRICAL, ELECTRIC	SSMH	SANITARY SEWER
ELEC OH	ELECTRICAL OVERHEAD	ST	SANITARY SEWER MANHOLE
ELL	ELBOW	STA	STREET
EP, EOP	EDGE OF PAVEMENT	SW	STATION
ETW	EDGE OF TRAVEL WAY		SIDEWALK
EVCE	END OF VERTICAL CURVE ELEVATION	T	TELEPHONE, TOTAL
EVCS	END OF VERTICAL CURVE STATION	TC	TELECOMMUNICATION
EXIST, EX, (E)	EXISTING	TCE	TEMPORARY CONSTRUCTION EASEMENT
FDAC	FULL DEPTH ASPHALT CONCRETE	TEL	TELEPHONE
FH	FIRE HYDRANT	TOC	TOP OF CURB
FID	FRESNO IRRIGATION DISTRICT	TS	TRAFFIC SIGNAL
FMFCD	FRESNO METROPOLITAN FLOOD CONTROL DISTRICT	TYP	TYPICAL
F.O.	FIBER OPTIC	UG, U/G	UNDERGROUND
FOC	FACE OF CURB	VAR	VARIES
FUT	FUTURE	VC	VERTICAL CURVE
G	GAS	VCP	VITRIFIED CLAY PIPE
GALV	GALVANIZED	W	WATER, WEST
GB	GRADE BREAK	W/	WITH
GIS	GEOGRAPHICAL INFORMATION SYSTEM	WM	WATER MAIN
GND	GROUND	WV	WATER VALVE
GSB	GOLDEN STATE BLVD		
GTR	GUTTER		
GV	GAS VALVE		

ADDENDUM 3 - RFP HSR 11-16

CONTRACT NO.
DRAWING NO.
UT-B0019
SCALE
NO SCALE
SHEET NO.

DESIGNED BY C. ALLEN	PROPOSED PRELIMINARY DESIGN	 CALIFORNIA HIGH-SPEED TRAIN	 CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C UTILITIES COMPOSITE UTILITY PLAN LEGEND, SYMBOLS & ABBREVIATIONS
DRAWN BY C. DOEHNE	NOT FOR CONSTRUCTION			



CONTRACT NO.
UT-B0020
DRAWING NO.
AS SHOWN
SCALE
SHEET NO.
CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION
PACKAGE 1C UTILITIES COMPOSITE UTILITY PLAN KEY MAP
URS HMM ARUP
CALIFORNIA HIGH-SPEED RAIL AUTHORITY
DESIGNED BY C. ALLEN DRAWN BY P. TONKIN CHECKED BY M. POLISCHUK IN CHARGE R. COFFIN DATE 06/06/12
PROPOSED PRELIMINARY DESIGN NOT FOR CONSTRUCTION
REV DATE BY CHK APP DESCRIPTION

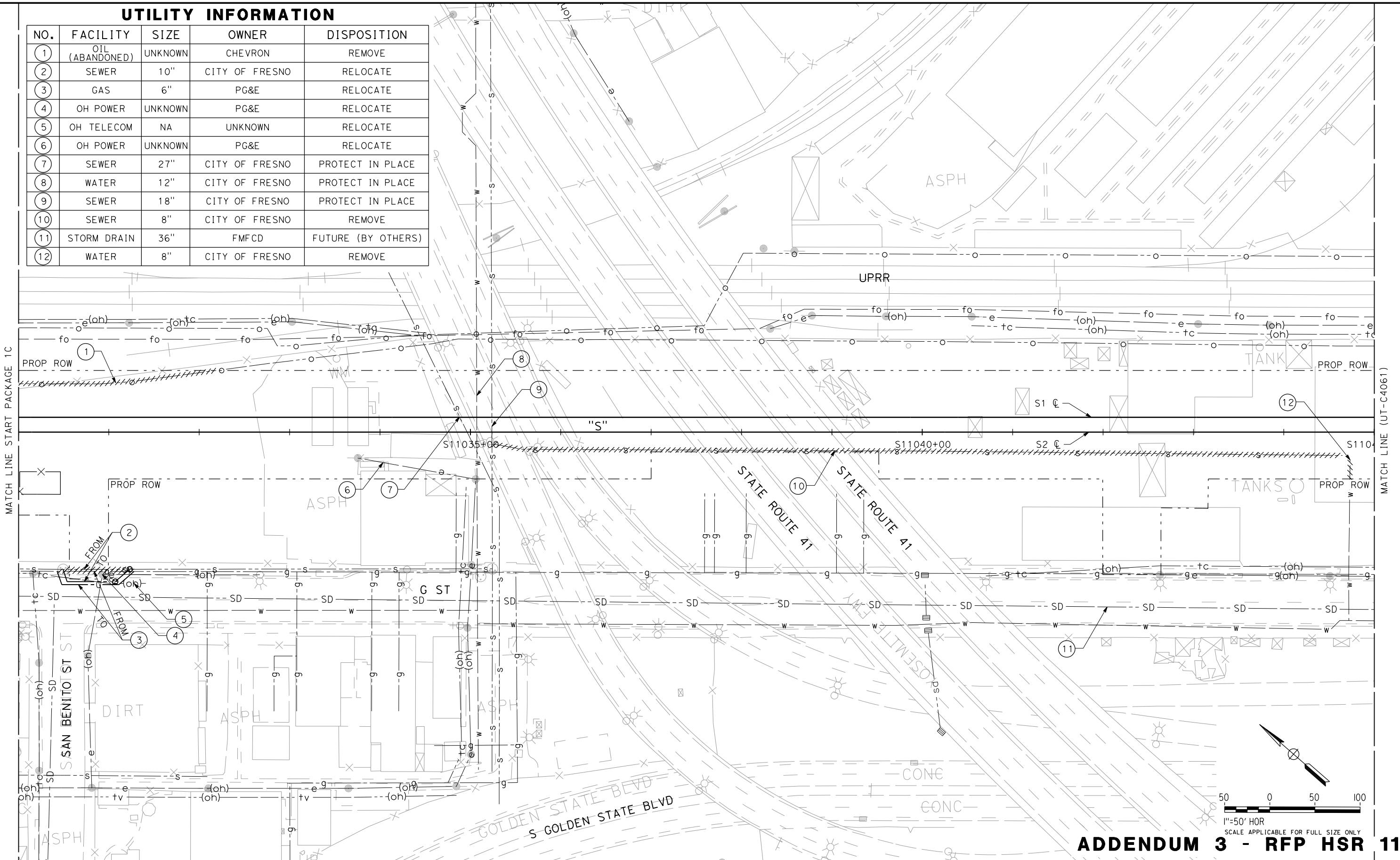
UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	OIL (ABANDONED)	UNKNOWN	CHEVRON	REMOVE
2	SEWER	10"	CITY OF FRESNO	RELOCATE
3	GAS	6"	PG&E	RELOCATE
4	OH POWER	UNKNOWN	PG&E	RELOCATE
5	OH TELECOM	NA	UNKNOWN	RELOCATE
6	OH POWER	UNKNOWN	PG&E	RELOCATE
7	SEWER	27"	CITY OF FRESNO	PROTECT IN PLACE
8	WATER	12"	CITY OF FRESNO	PROTECT IN PLACE
9	SEWER	18"	CITY OF FRESNO	PROTECT IN PLACE
10	SEWER	8"	CITY OF FRESNO	REMOVE
11	STORM DRAIN	36"	FMFCD	FUTURE (BY OTHERS)
12	WATER	8"	CITY OF FRESNO	REMOVE

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06/29/2012 ADDENDUM 3 - RFP HSR 11-16



ADDENDUM 3 - RFP HSR 11-16

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
UTILITIES

COMPOSITE UTILITY PLAN

STA. 11030+00 TO STA. 11045+00

CONTRACT NO.
DRAWING NO.
UT-C4060
CALE
AS SHOWN
SHEET NO.

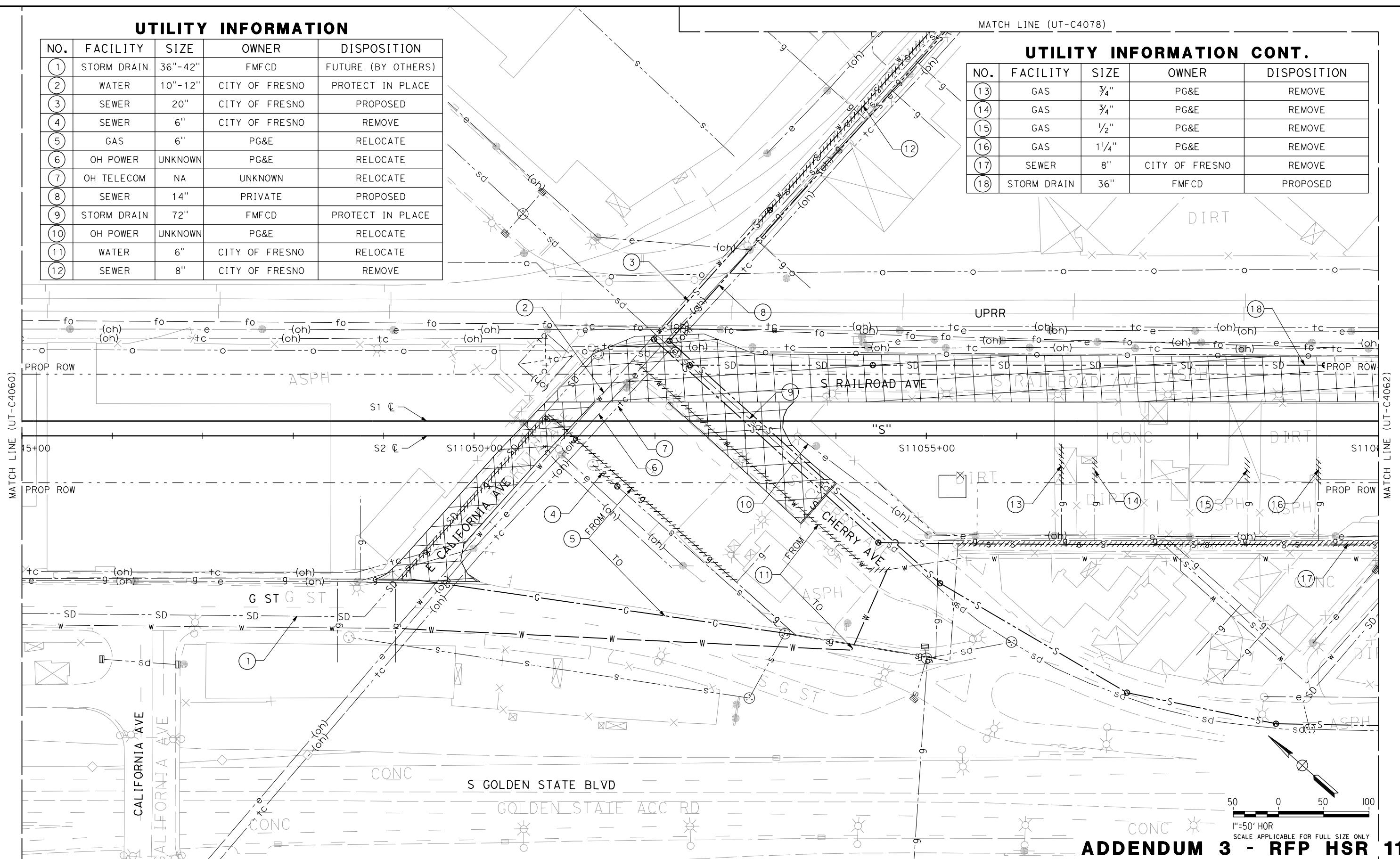
UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	STORM DRAIN	36"-42"	FMFCD	FUTURE (BY OTHERS)
2	WATER	10"-12"	CITY OF FRESNO	PROTECT IN PLACE
3	SEWER	20"	CITY OF FRESNO	PROPOSED
4	SEWER	6"	CITY OF FRESNO	REMOVE
5	GAS	6"	PG&E	RELOCATE
6	OH POWER	UNKNOWN	PG&E	RELOCATE
7	OH TELECOM	NA	UNKNOWN	RELOCATE
8	SEWER	14"	PRIVATE	PROPOSED
9	STORM DRAIN	72"	FMFCD	PROTECT IN PLACE
10	OH POWER	UNKNOWN	PG&E	RELOCATE
11	WATER	6"	CITY OF FRESNO	RELOCATE
12	SEWER	8"	CITY OF FRESNO	REMOVE

MATCH LINE (UT-C4078)

UTILITY INFORMATION CONT.

NO.	FACILITY	SIZE	OWNER	DISPOSITION
13	GAS	3/4"	PG&E	REMOVE
14	GAS	3/4"	PG&E	REMOVE
15	GAS	1/2"	PG&E	REMOVE
16	GAS	1 1/4"	PG&E	REMOVE
17	SEWER	8"	CITY OF FRESNO	REMOVE
18	STORM DRAIN	36"	FMFCD	PROPOSED



ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY C. ALLEN	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY S. KHAN	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. UT-C4061
CHECKED BY M. POLISCHUK		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN
IN CHARGE J. LABANOWSKI			SHEET NO.
DATE 06/06/12			
REV DATE BY CHK APP	DESCRIPTION		

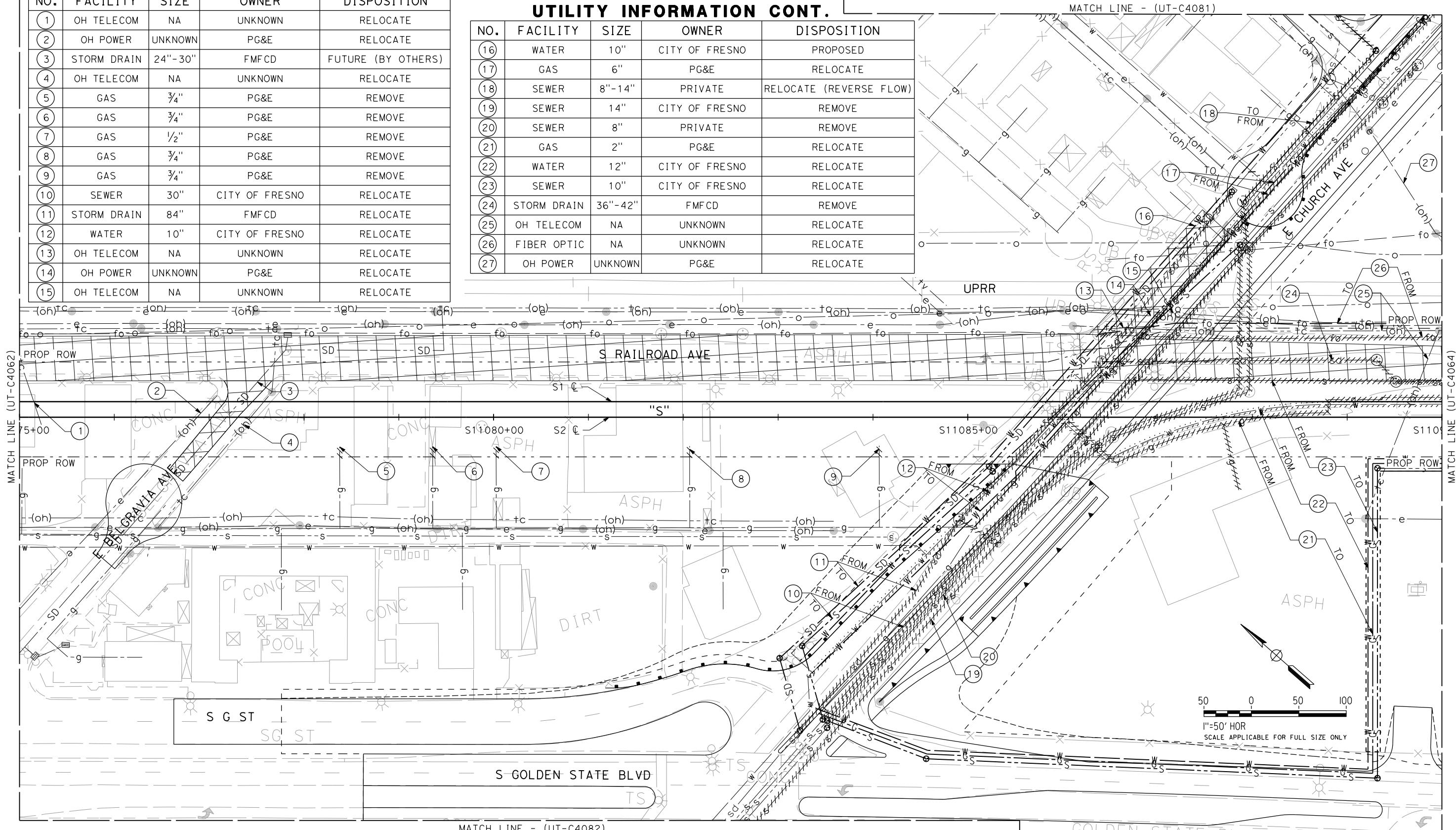
UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(1)	OH TELECOM	NA	UNKNOWN	RELOCATE
(2)	OH POWER	UNKNOWN	PG&E	RELOCATE
(3)	STORM DRAIN	24"-30"	FMFCD	FUTURE (BY OTHERS)
(4)	OH TELECOM	NA	UNKNOWN	RELOCATE
(5)	GAS	3/4"	PG&E	REMOVE
(6)	GAS	3/4"	PG&E	REMOVE
(7)	GAS	1/2"	PG&E	REMOVE
(8)	GAS	3/4"	PG&E	REMOVE
(9)	GAS	3/4"	PG&E	REMOVE
(10)	SEWER	30"	CITY OF FRESNO	RELOCATE
(11)	STORM DRAIN	84"	FMFCD	RELOCATE
(12)	WATER	10"	CITY OF FRESNO	RELOCATE
(13)	OH TELECOM	NA	UNKNOWN	RELOCATE
(14)	OH POWER	UNKNOWN	PG&E	RELOCATE
(15)	OH TELECOM	NA	UNKNOWN	RELOCATE

UTILITY INFORMATION CONT.

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(16)	WATER	10"	CITY OF FRESNO	PROPOSED
(17)	GAS	6"	PG&E	RELOCATE
(18)	SEWER	8"-14"	PRIVATE	RELOCATE (REVERSE FLOW)
(19)	SEWER	14"	CITY OF FRESNO	REMOVE
(20)	SEWER	8"	PRIVATE	REMOVE
(21)	GAS	2"	PG&E	RELOCATE
(22)	WATER	12"	CITY OF FRESNO	RELOCATE
(23)	SEWER	10"	CITY OF FRESNO	RELOCATE
(24)	STORM DRAIN	36"-42"	FMFCD	REMOVE
(25)	OH TELECOM	NA	UNKNOWN	RELOCATE
(26)	FIBER OPTIC	NA	UNKNOWN	RELOCATE
(27)	OH POWER	UNKNOWN	PG&E	RELOCATE

MATCH LINE (UT-C4062)



06/29/2012 ADDENDUM 3 - RFP HSR 11-16

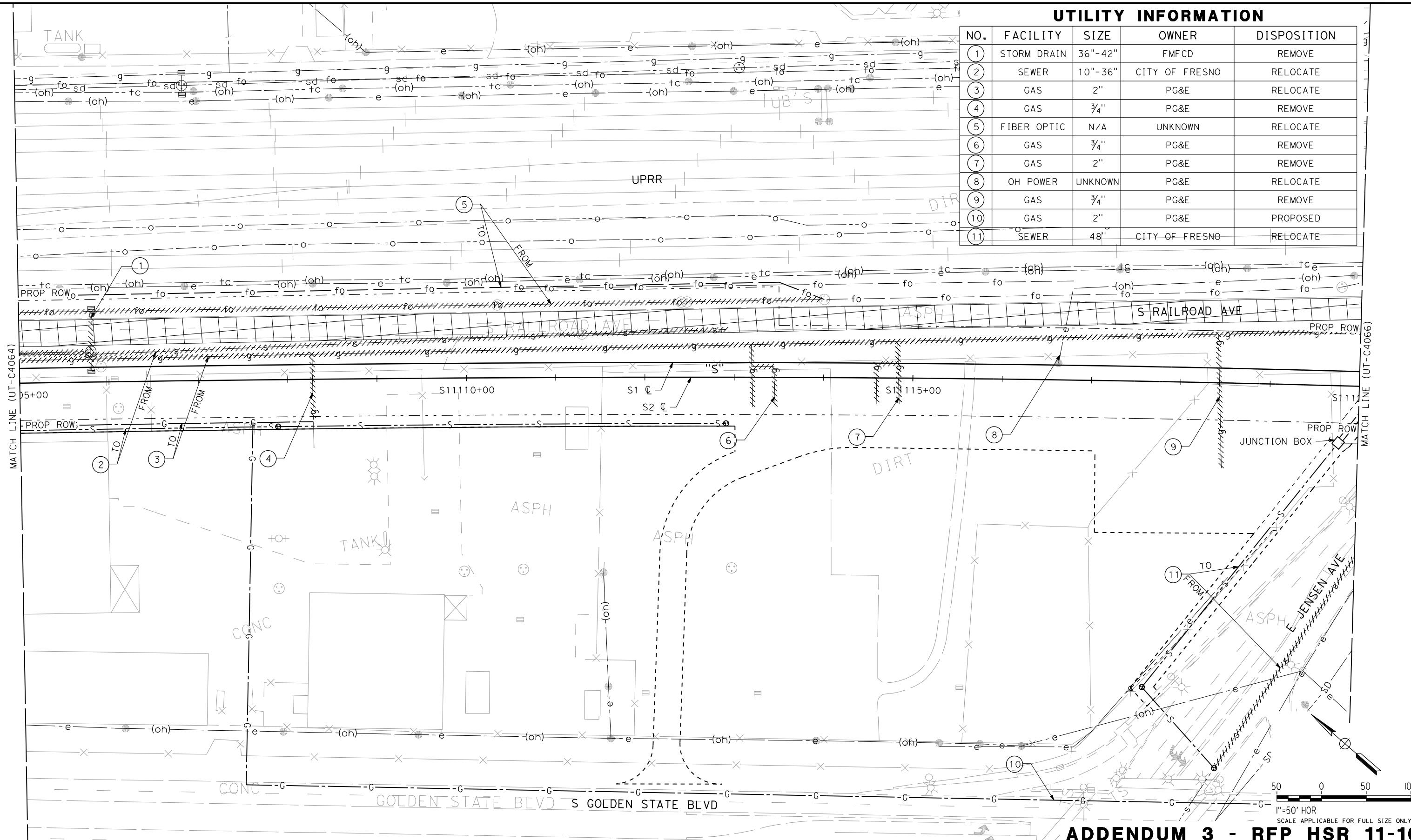
ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY C. ALLEN	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY S. KHAN	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. UT-C4063
CHECKED BY M. POLISCHUK		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN
IN CHARGE J. LABANOWSKI			SHEET NO.
DATE 06/06/12			
REV	DATE	BY	CHK APP
DESCRIPTION			

UTILITY INFORMATION

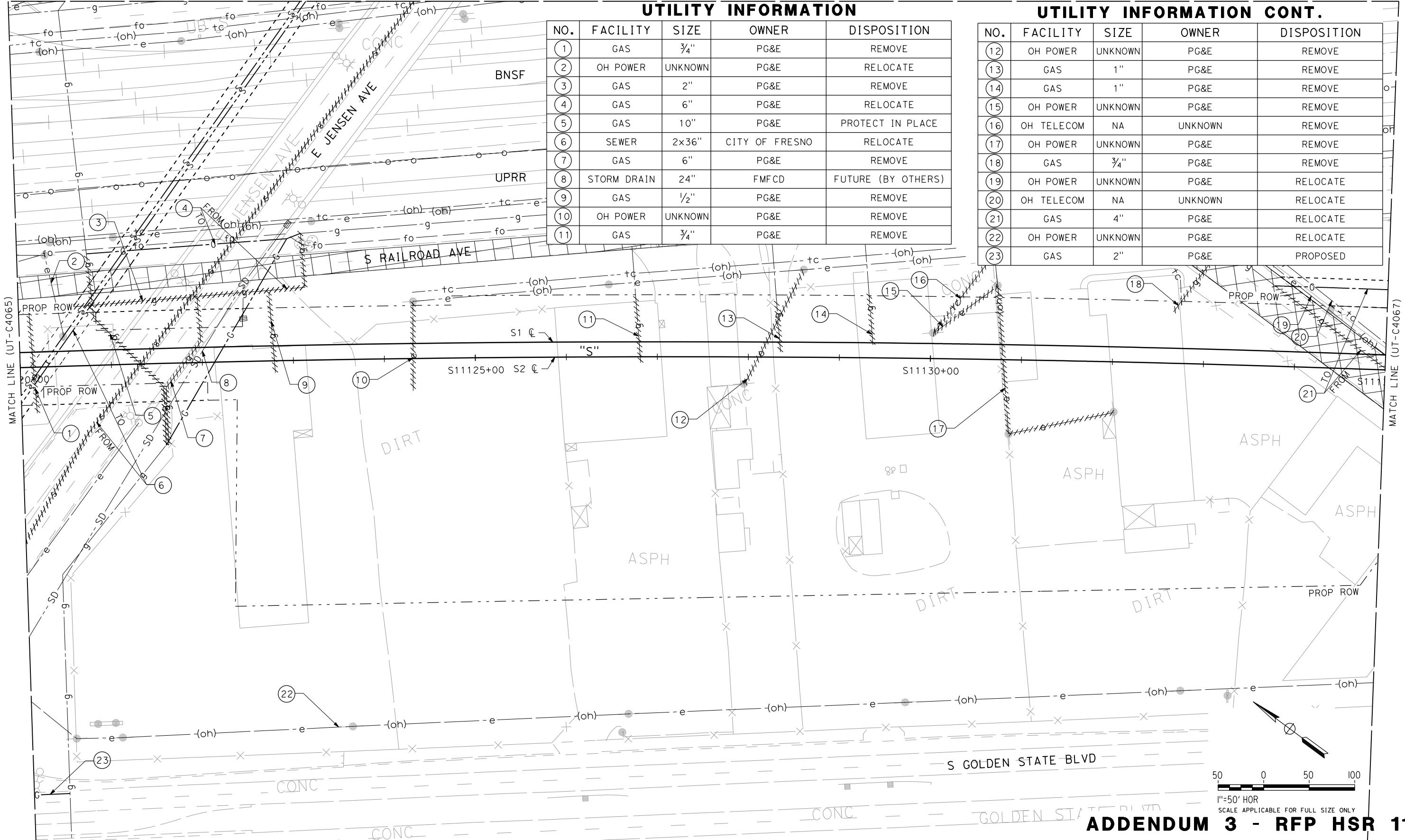
NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	STORM DRAIN	36"-42"	FMFCD	REMOVE
2	SEWER	10"-36"	CITY OF FRESNO	RELOCATE
3	GAS	2"	PG&E	RELOCATE
4	GAS	3/4"	PG&E	REMOVE
5	FIBER OPTIC	N/A	UNKNOWN	RELOCATE
6	GAS	3/4"	PG&E	REMOVE
7	GAS	2"	PG&E	REMOVE
8	OH POWER	UNKNOWN	PG&E	RELOCATE
9	GAS	3/4"	PG&E	REMOVE
10	GAS	2"	PG&E	PROPOSED
11	SEWER	48"	CITY OF FRESNO	RELOCATE

06/29/2012 ADDENDUM 3 - RFP HSR 11-16



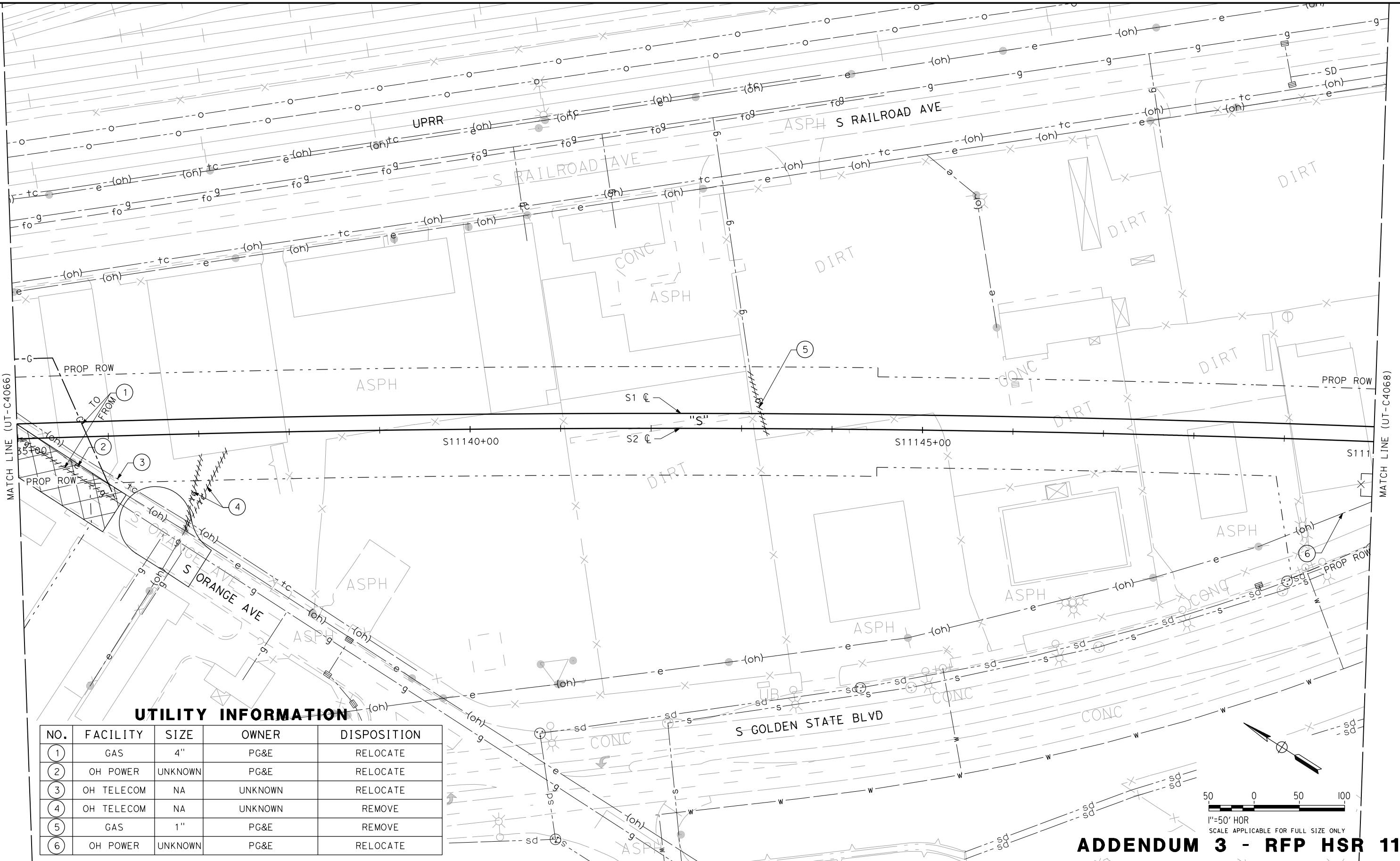
ADDENDUM 3 - RFP HSR 11-16

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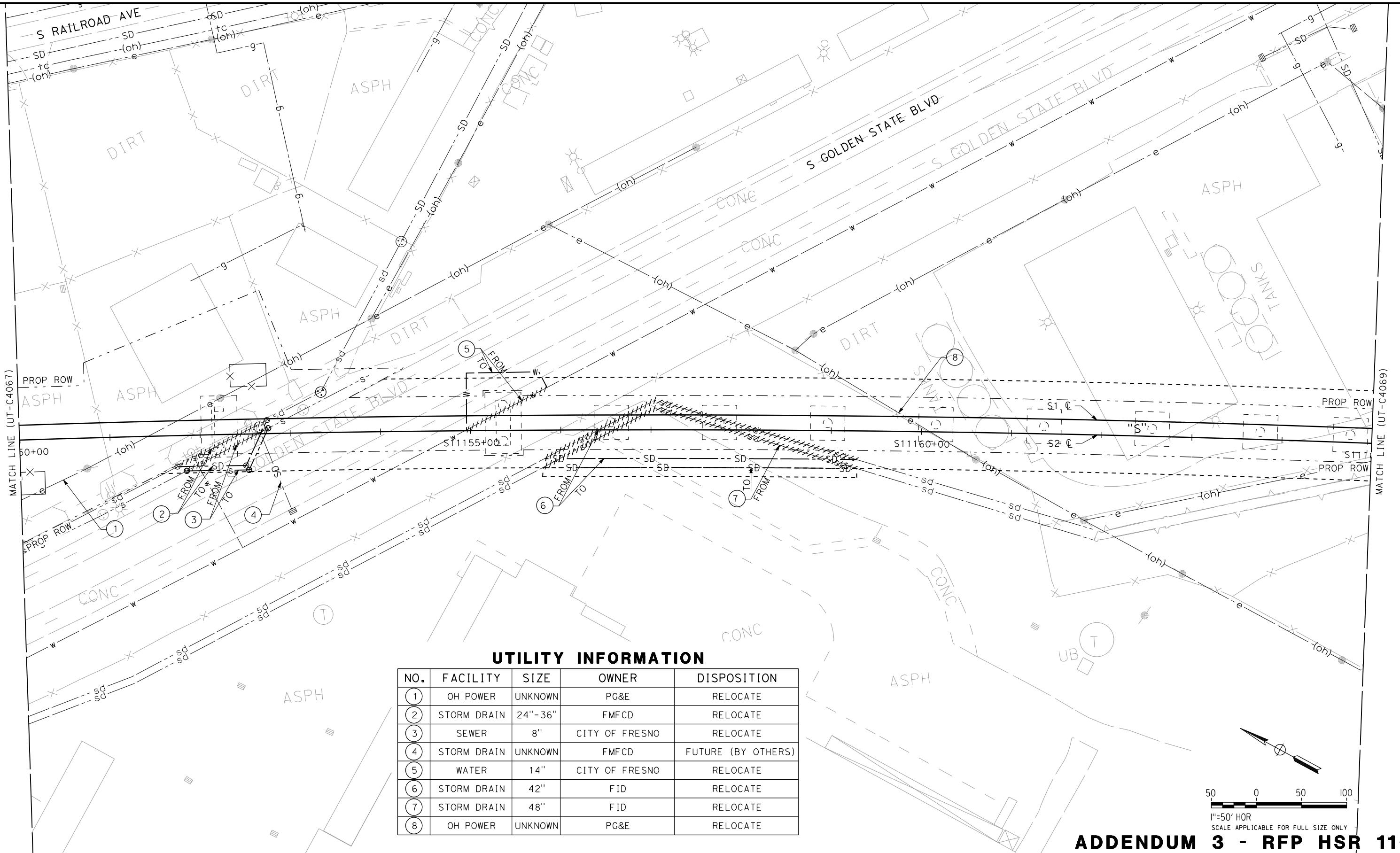
ADDENDUM 3 - RFP HSR 11-16

					DESIGNED BY C. ALLEN		PROPOSED PRELIMINARY DESIGN	 URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	 CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
					DRAWN BY S. KHAN					PACKAGE 1C UTILITIES	DRAWING NO.
					CHECKED BY M. POLISCHUK					COMPOSITE UTILITY PLAN	UT-C4066
					IN CHARGE J. LABANOWSKI					STA. 11120+00 TO STA. 11135+00	SCALE
					DATE 06/06/12		NOT FOR CONSTRUCTION				AS SHOWN
REV	DATE	BY	CHK	APP	DESCRIPTION						SHEET NO.

**ADDENDUM 3 - RFP HSR 11-16**

REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY C. ALLEN DRAWN BY S. KHAN CHECKED BY M. POLISCHUK IN CHARGE J. LABANOWSKI DATE 06/06/12	PROPOSED PRELIMINARY DESIGN NOT FOR CONSTRUCTION	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO. DRAWING NO. UT-C4067 SCALE AS SHOWN SHEET NO.

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
STA. 11135+00 TO STA. 11150+00

**ADDENDUM 3 - RFP HSR 11-16**

REV	DATE	BY	CHK	APP	DESCRIPTION

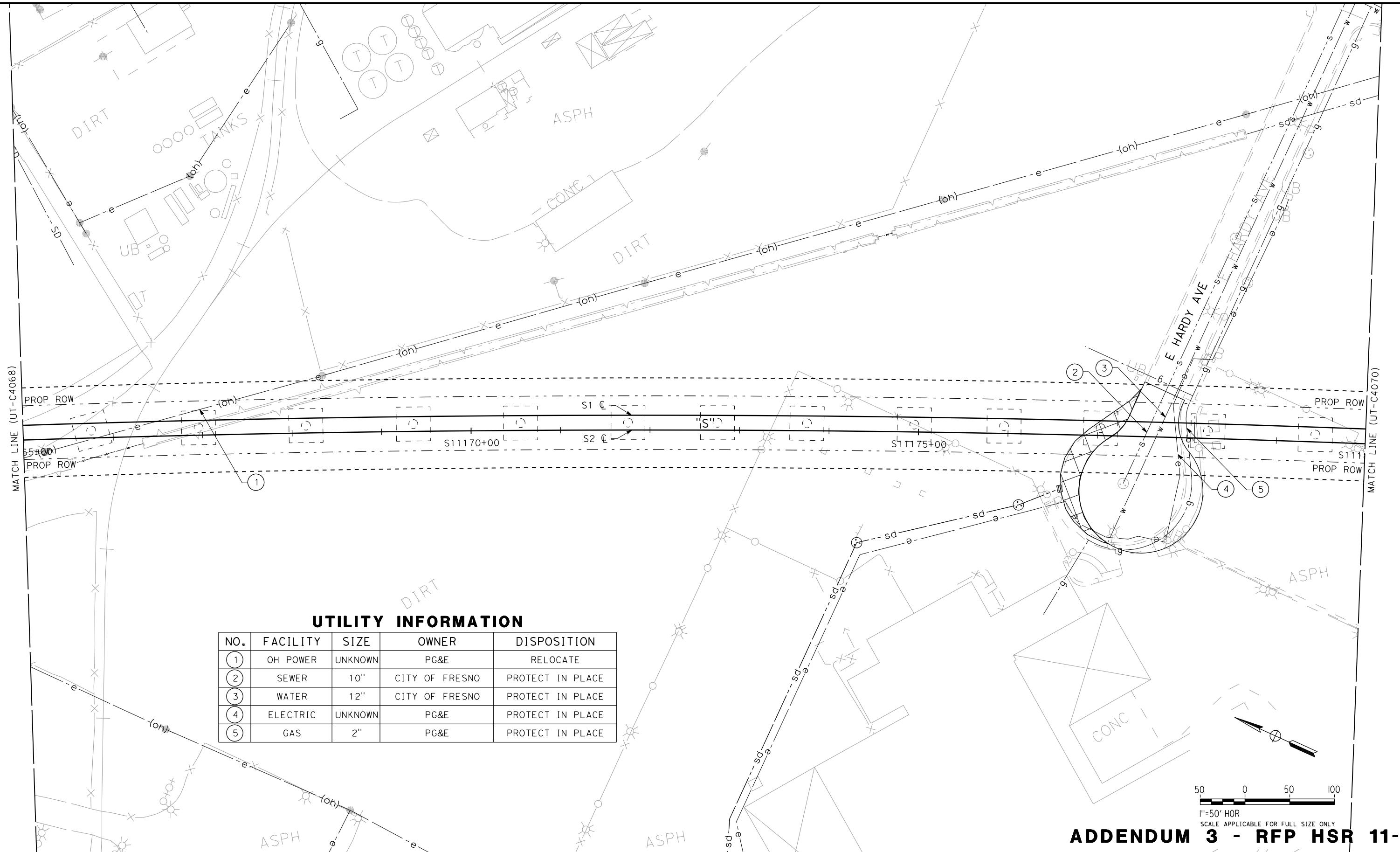
DESIGNED BY
C. ALLEN
DRAWN BY
S. KHAN
CHECKED BY
M. POLISCHUK
IN CHARGE
J. LABANOWSKI
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
**NOT FOR
CONSTRUCTION**

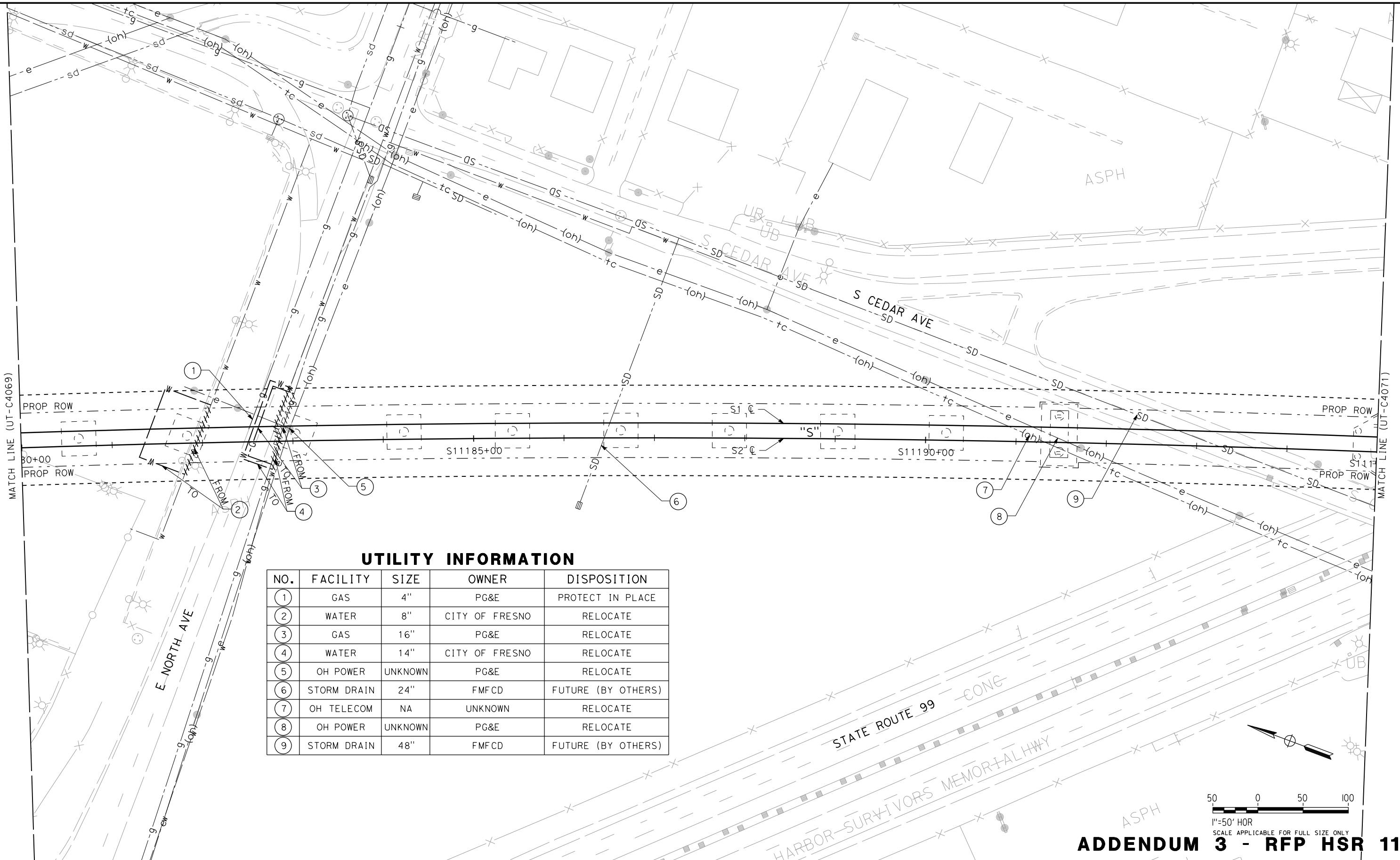


**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
STA. 11150+00 TO STA. 11165+00

CONTRACT NO.
DRAWING NO. UT-C4068
SCALE AS SHOWN
SHEET NO.

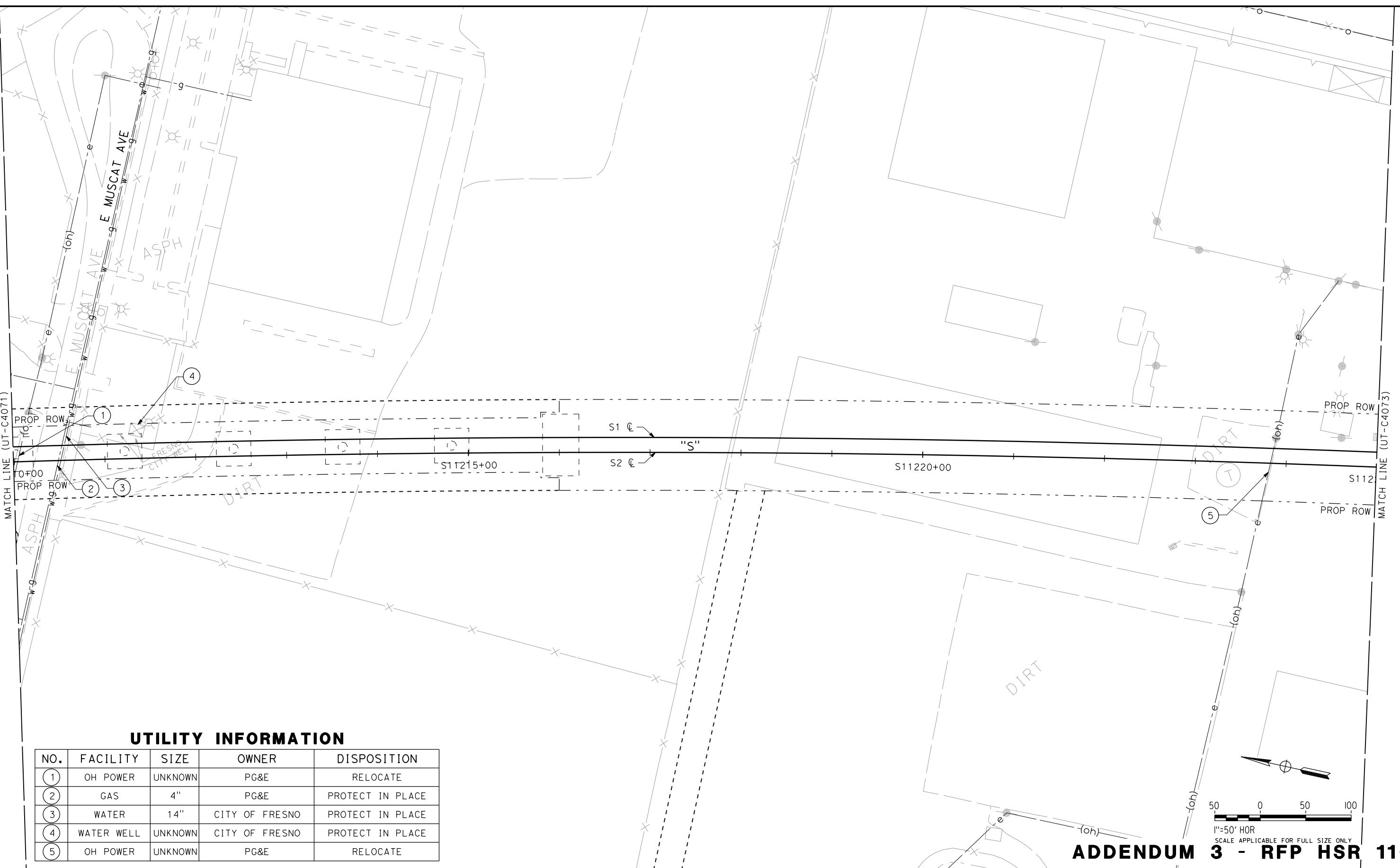
**ADDENDUM 3 - RFP HSR 11-16**

DESIGNED BY C. ALLEN	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION			CONTRACT NO.
DRAWN BY S. KHAN					DRAWING NO.
CHECKED BY M. POLISCHUK					SCALE
IN CHARGE J. LABANOWSKI					AS SHOWN
DATE 06/06/12	NOT FOR CONSTRUCTION	URS HMM ARUP	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	PACKAGE 1C UTILITIES COMPOSITE UTILITY PLAN STA. 11165+00 TO STA. 11180+00	SHEET NO.
REV	DATE	BY	CHK	APP	DESCRIPTION



DESIGNED BY C. ALLEN	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.
DRAWN BY S. KHAN	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. UT-C4070
CHECKED BY M. POLISCHUK		CALIFORNIA HIGH-SPEED TRAIN	SCALE AS SHOWN
IN CHARGE J. LABANOWSKI			SHEET NO.
DATE 06/06/12			
REV	DATE	BY	CHK APP
DESCRIPTION			

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
STA. 11180+00 TO STA. 11195+00



UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(1)	OH POWER	UNKNOWN	PG&E	RELOCATE
(2)	GAS	4"	PG&E	PROTECT IN PLACE
(3)	WATER	14"	CITY OF FRESNO	PROTECT IN PLACE
(4)	WATER WELL	UNKNOWN	CITY OF FRESNO	PROTECT IN PLACE
(5)	OH POWER	UNKNOWN	PG&E	RELOCATE

DESIGNED BY
C. ALLEN
DRAWN BY
S. KHAN
CHECKED BY
M. POLISCHUK
IN CHARGE
J. LABANOWSKI
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
NOT FOR
CONSTRUCTION



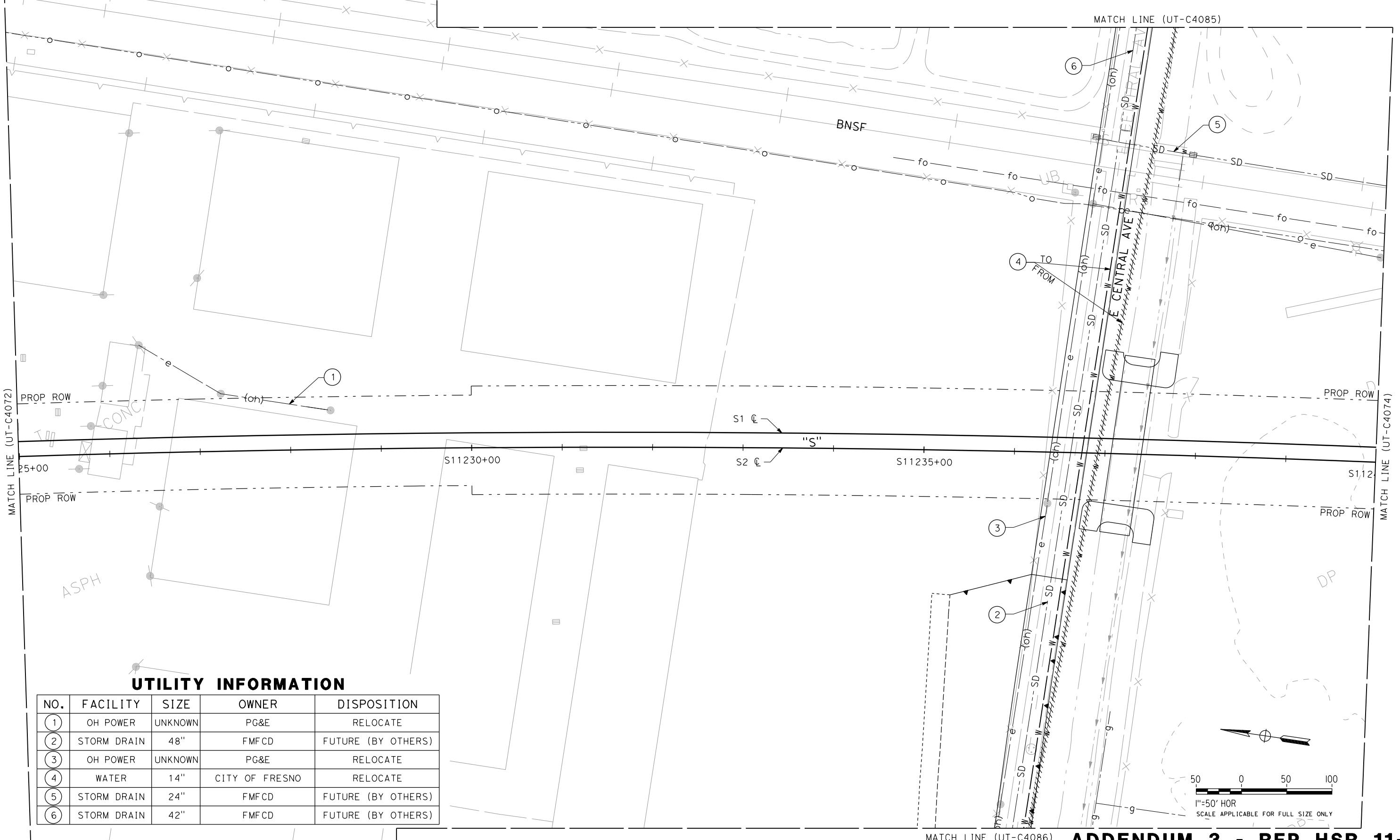
CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

ADDENDUM 3 - RFP HSR 11-16

CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
STA. 11210+00 TO STA. 11225+00

CONTRACT NO.
DRAWING NO.
SCALE
SHEET NO.

UT-C4072
AS SHOWN
06/06/12

ADDENDUM 3 - RFP HSR 11-16

CONTRACT NO.
DRAWING NO. UT-C4073
SCALE AS SHOWN
SHEET NO.

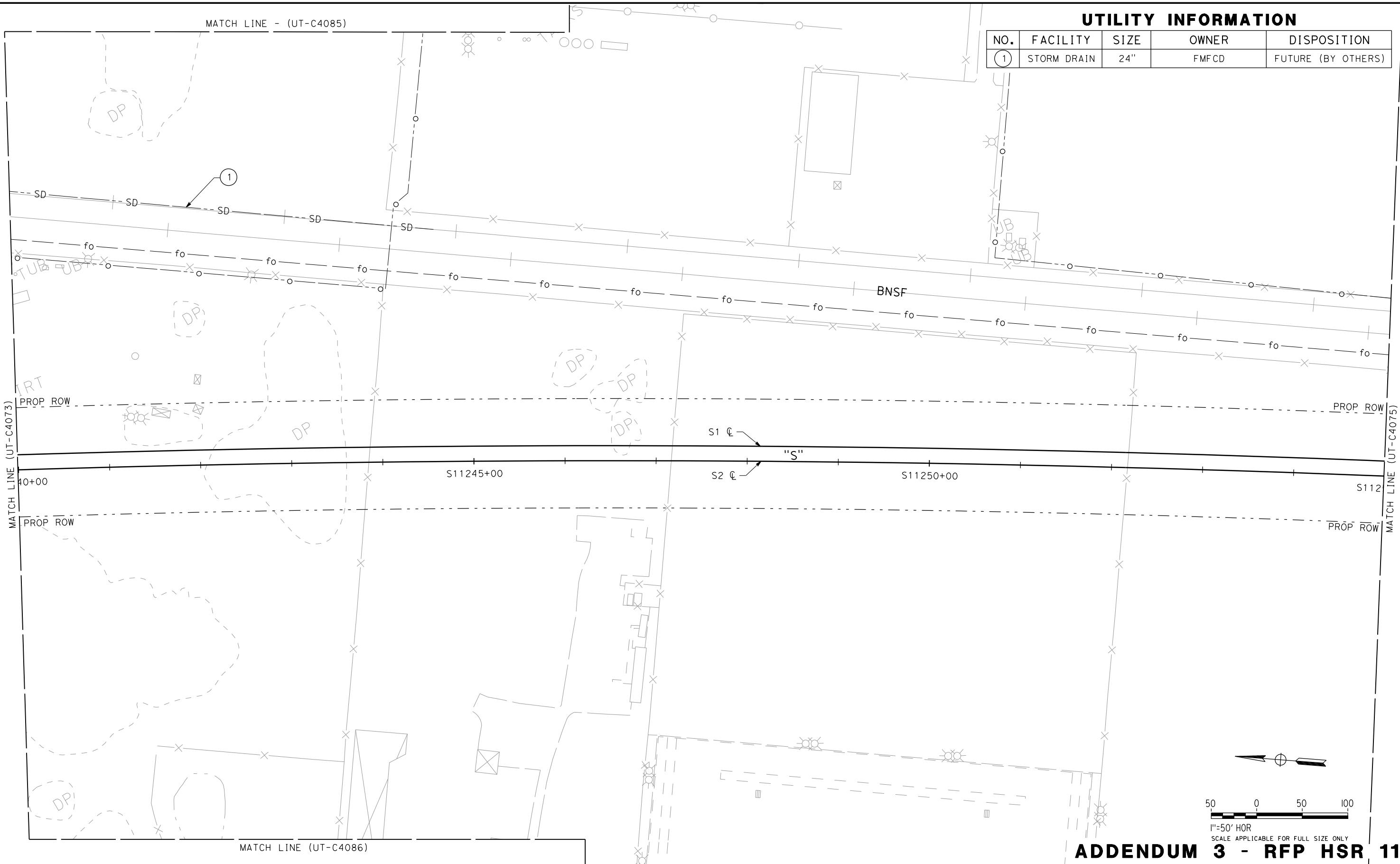
REV DATE BY CHK APP DESCRIPTION

CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION
PACKAGE 1C UTILITIES COMPOSITE UTILITY PLAN E CENTRAL AVE

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UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	STORM DRAIN	24"	FMFCD	FUTURE (BY OTHERS)



ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY C. ALLEN	PROPOSED PRELIMINARY DESIGN	NOT FOR CONSTRUCTION
DRAWN BY S. KHAN		
CHECKED BY M. POLISCHUK		
IN CHARGE J. LABANOWSKI		
DATE 06/06/12		



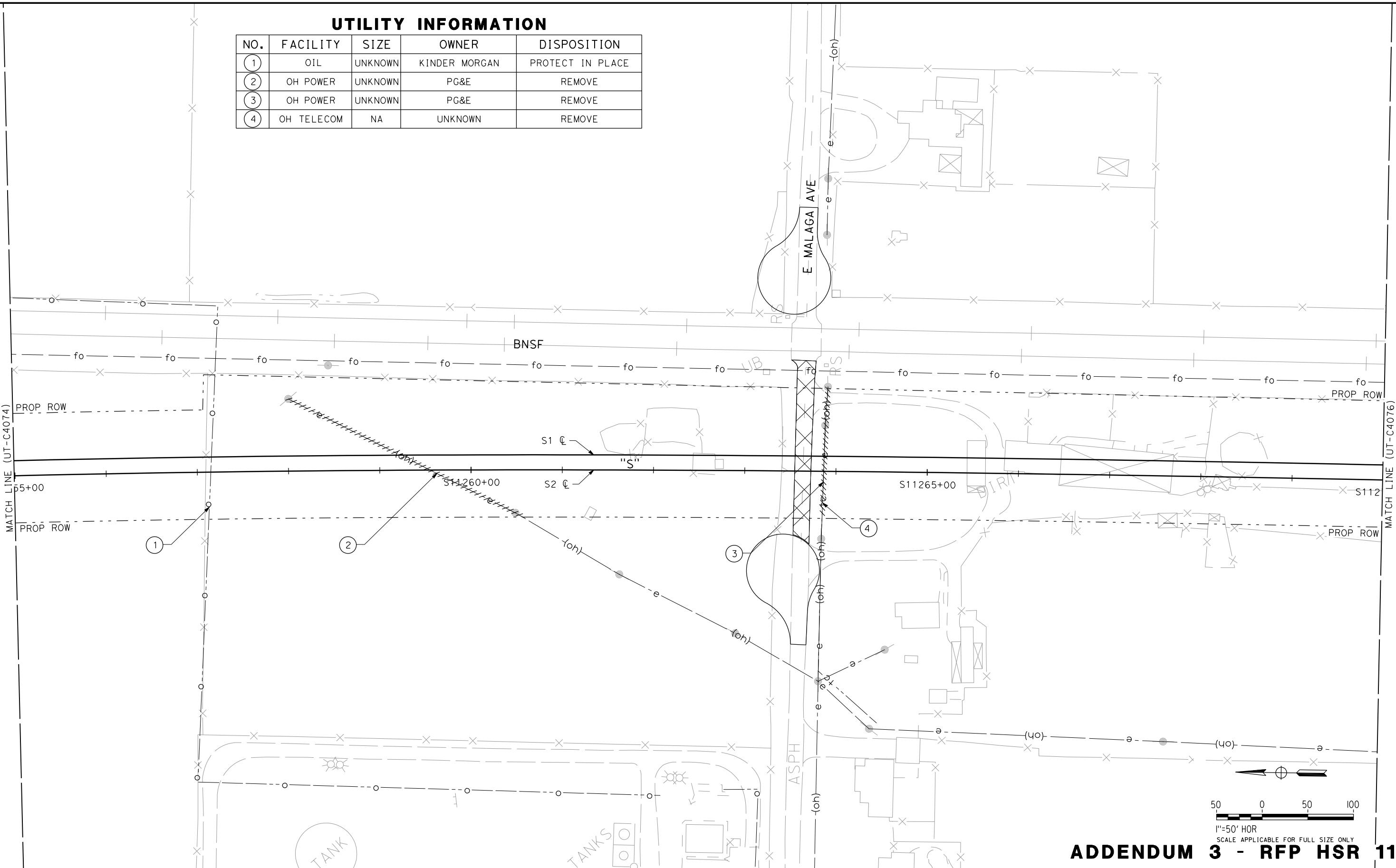
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
STA. 11240+00 TO STA. 11255+00

CONTRACT NO.
DRAWING NO.
UT-C4074
SCALE
AS SHOWN
SHEET NO.

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(1)	OIL	UNKNOWN	KINDER MORGAN	PROTECT IN PLACE
(2)	OH POWER	UNKNOWN	PG&E	REMOVE
(3)	OH POWER	UNKNOWN	PG&E	REMOVE
(4)	OH TELECOM	NA	UNKNOWN	REMOVE



ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY C. ALLEN	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO.
DRAWN BY S. KHAN	NOT FOR CONSTRUCTION	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	DRAWING NO. UT-C4075
CHECKED BY M. POLISCHUK			SCALE AS SHOWN
IN CHARGE J. LABANOWSKI			SHEET NO.
DATE 06/06/12			
REV	DATE	BY	CHK APP
DESCRIPTION			

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
STA. 11255+00 TO STA. 11270+00

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					DESIGN C. .
					DRAWING S. .
					CHECKED M. .
					IN CHARGE J. .
DATE	BY	CHK	APP	DESCRIPTION	

**PROPOSAL
PRELIMINARY
DESIGN
NOT FOR
CONSTRUCTION**



ADDENDUM 3 - RFP HSR 11-16

PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
STA. 11270+00 TO STA. 11285+00

CONTRACT NO.
DRAWING NO.
UT-C4076
SCALE
AS SHOWN
SHEET NO.

carlton_allen 6/5/2012 3:1

+

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MATCH LINE (UT-C4087)

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	OH POWER	UNKNOWN	PG&E	RELOCATE
2	OH TELECOM	NA	UNKNOWN	RELOCATE
3	OH POWER	UNKNOWN	PG&E	RELOCATE

MATCH LINE (UT-C4076)

MATCH LINE (UT-C408)

MATCH LINE

1

1

1

1

1

1

1

1

1

1

**PROPOSED
PRELIMINARY
DESIGN**

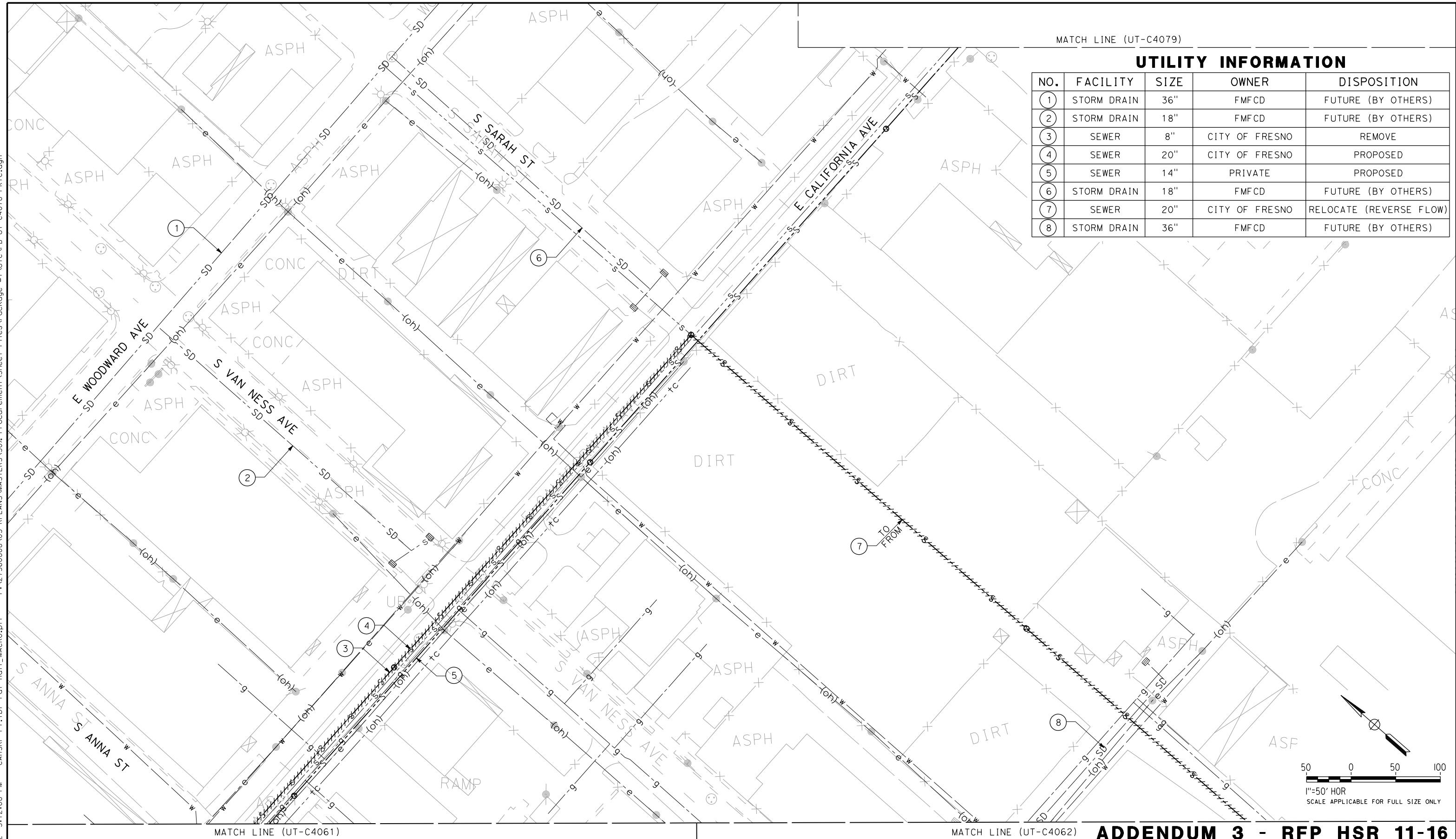
**NOT FOR
CONSTRUCTION**



ADDENDUM 3 - RFP HSR 11-16

PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
E AMERICAN AVE

CONTRACT NO.
DRAWING NO. UT-C4077
SCALE AS SHOWN
SHEET NO.

**ADDENDUM 3 - RFP HSR 11-16**

DESIGNED BY C. ALLEN	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION			CONTRACT NO.
DRAWN BY S. KHAN	NOT FOR CONSTRUCTION	URS HMM ARUP			DRAWING NO. UT-C4078
CHECKED BY M. POLISCHUK		CALIFORNIA HIGH-SPEED TRAIN			SCALE AS SHOWN
IN CHARGE J. LABANOWSKI		HIGH-SPEED RAIL AUTHORITY			SHEET NO.
REV	DATE	BY	CHK	APP	REV
REV	DATE	DESCRIPTION			
		06/06/12			

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(1)	SEWER	14"	PRIVATE	PROPOSED
(2)	SEWER	8"-14"	PRIVATE	RELOCATE (REVERSE FLOW)

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MATCH LINE (UT-C4078)

DESIGNED BY
C. ALLEN

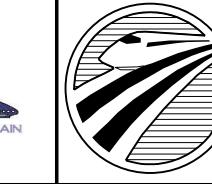
DRAWN BY
S. KHAN

CHECKED BY
M. POLISCHUK

IN CHARGE
J. LABANOWSKI

DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
**NOT FOR
CONSTRUCTION**



CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
E CALIFORNIA AVE/S E AVE

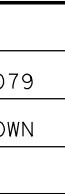
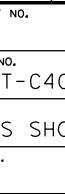
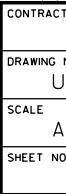
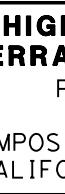
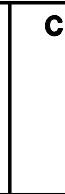
CONTRACT NO.
DRAWING NO.
UT-C4079
SCALE
AS SHOWN
SHEET NO.

06/29/2012 ADDENDUM 3 - RFP HSR 11-16

AS
1"=50' HOR
SCALE APPLICABLE FOR FULL SIZE ONLY

ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION

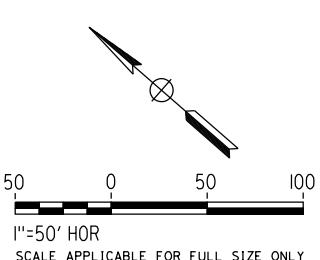


UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(1)	SEWER	8"-14"	PRIVATE	RELOCATE (REVERSE FLOW)



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
S E AVE



ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY C. ALLEN	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY
DRAWN BY S. KHAN		
CHECKED BY M. POLISCHUK		
IN CHARGE J. LABANOWSKI		
DATE 06/06/12	NOT FOR CONSTRUCTION	
REV. DATE BY CHK APP	DESCRIPTION	



CONTRACT NO.
DRAWING NO. UT-C4080
SCALE
AS SHOWN
SHEET NO.

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(1)	SEWER	8"-14"	PRIVATE	RELOCATE (REVERSE FLOW)
(2)	OH POWER	UNKNOWN	PG&E	RELOCATE
(3)	OH TELECOM	NA	UNKNOWN	RELOCATE
(4)	OH POWER	UNKNOWN	PG&E	RELOCATE
(5)	SEWER	24"	CITY OF FRESNO	RELOCATE
(6)	STORM DRAIN	36"-66"	FMFCD	RELOCATE
(7)	GAS	6"	PG&E	RELOCATE
(8)	WATER	10"	CITY OF FRESNO	RELOCATE

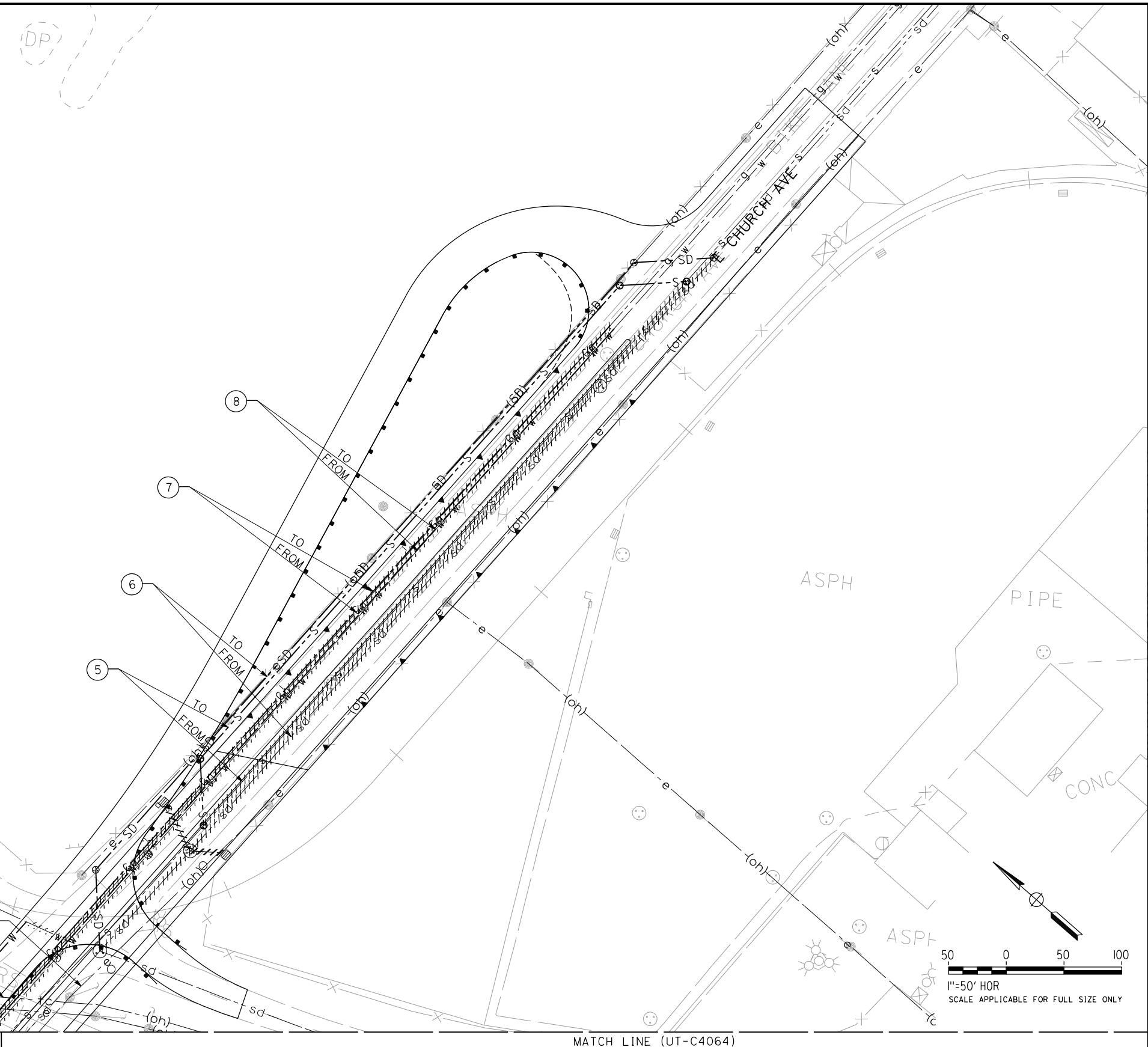
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MATCH LINE (UT-C4080)

MATCH LINE (UT-C4063)

MATCH LINE (UT-C4064)

06/29/2012 ADDENDUM 3 - RFP HSR 11-16



ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION
	06/06/12				

DESIGNED BY
C. ALLEN
DRAWN BY
S. KHAN
CHECKED BY
M. POLISCHUK
IN CHARGE
J. LABANOWSKI
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
NOT FOR
CONSTRUCTION

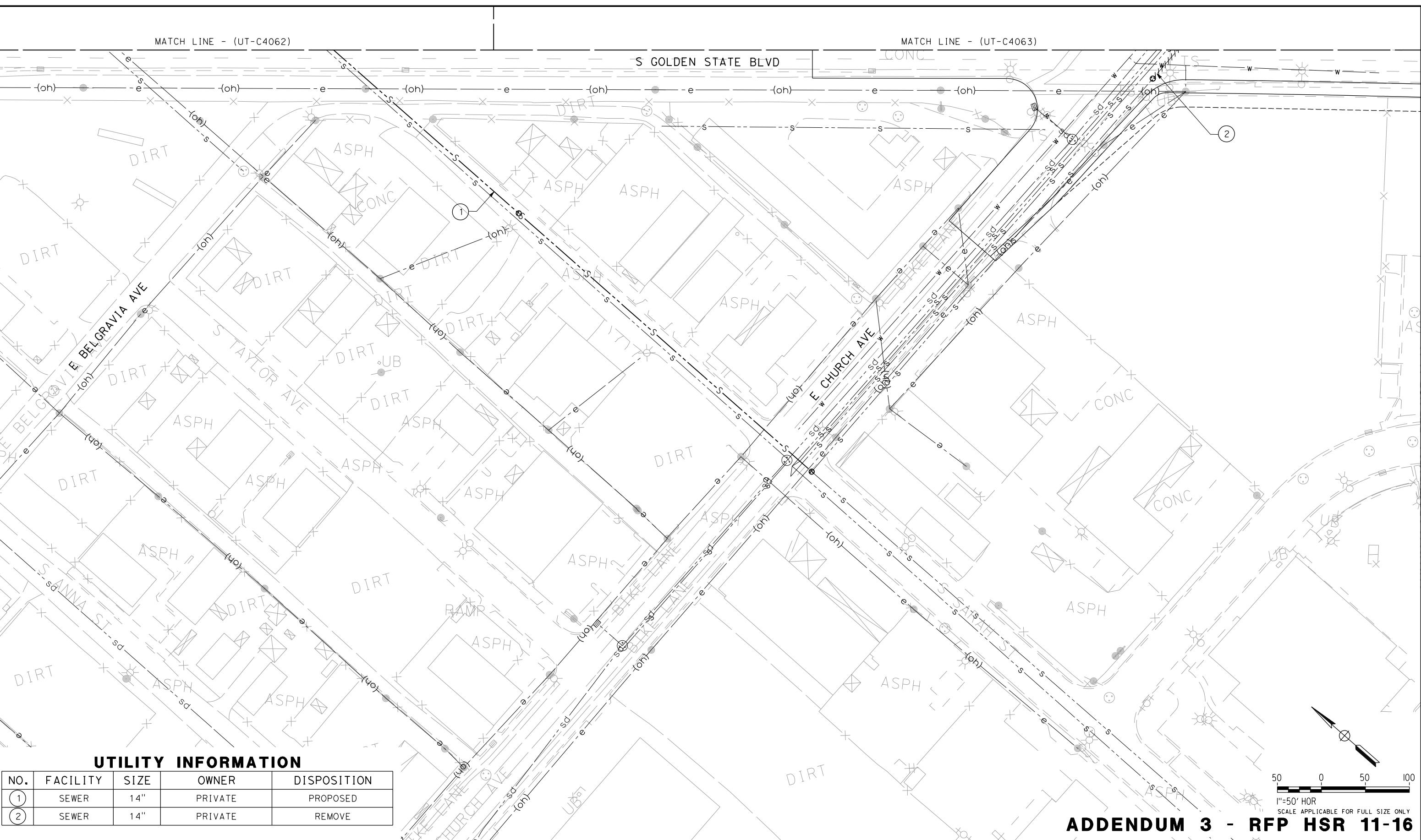


CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
E CHURCH AVE

CONTRACT NO.
DRAWING NO.
UT-C4081
SCALE
AS SHOWN
SHEET NO.

MATCH LINE - (UT-C4062)

MATCH LINE - (UT-C4063)

**UTILITY INFORMATION**

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	SEWER	14"	PRIVATE	PROPOSED
2	SEWER	14"	PRIVATE	REMOVE

50 0 50 100
I'=50' HOR
SCALE APPLICABLE FOR FULL SIZE ONLY

ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY
C. ALLEN
DRAWN BY
S. KHAN
CHECKED BY
M. POLISCHUK
IN CHARGE
J. LABANOWSKI
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
NOT FOR
CONSTRUCTION

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
E CHURCH AVE

CONTRACT NO.
DRAWING NO.
UT-C4082
SCALE
AS SHOWN
SHEET NO.

REV	DATE	BY	CHK	APP	DESCRIPTION
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UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(1)	STORM DRAIN	24"	FMFCD	PROPOSED

REV	DATE	BY	CHK	APP	DESCRIPTION	

DESIGNED BY
C. ALLEN
DRAWN BY
S. KHAN
CHECKED BY
M. POLISCHUK
IN CHARGE
J. LABANOWSKI
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
S E AVE

CONTRACT NO.
DRAWING NO.
UT-C4083
SCALE
AS SHOWN
SHEET NO.

50 0 50 100
1'=50' HOR
SCALE APPLICABLE FOR FULL SIZE ONLY

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	WATER	14"	CITY OF FRESNO	RELOCATE
2	STORM DRAIN	42"	FMFCD	FUTURE (BY OTHERS)

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MATCH LINE - (UT-C4073)

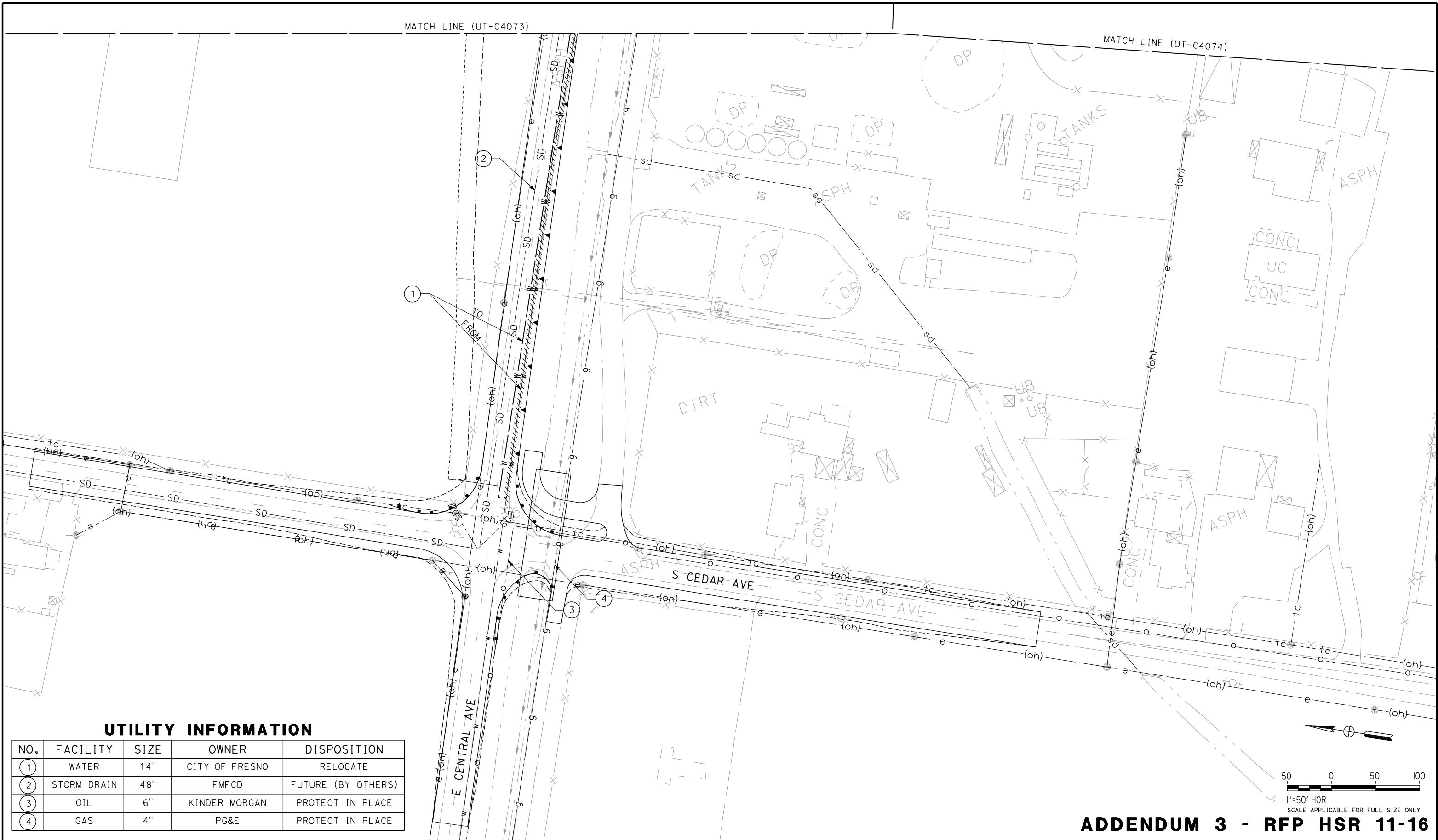


MATCH LINE - (UT-C4074) APPENDUM 3 - RFP HSB 11-16

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
E CENTRAL AVE

CONTRACT NO.
DRAWING NO. **UT-C4085**
SCALE **AS SHOWN**
SHEET NO.



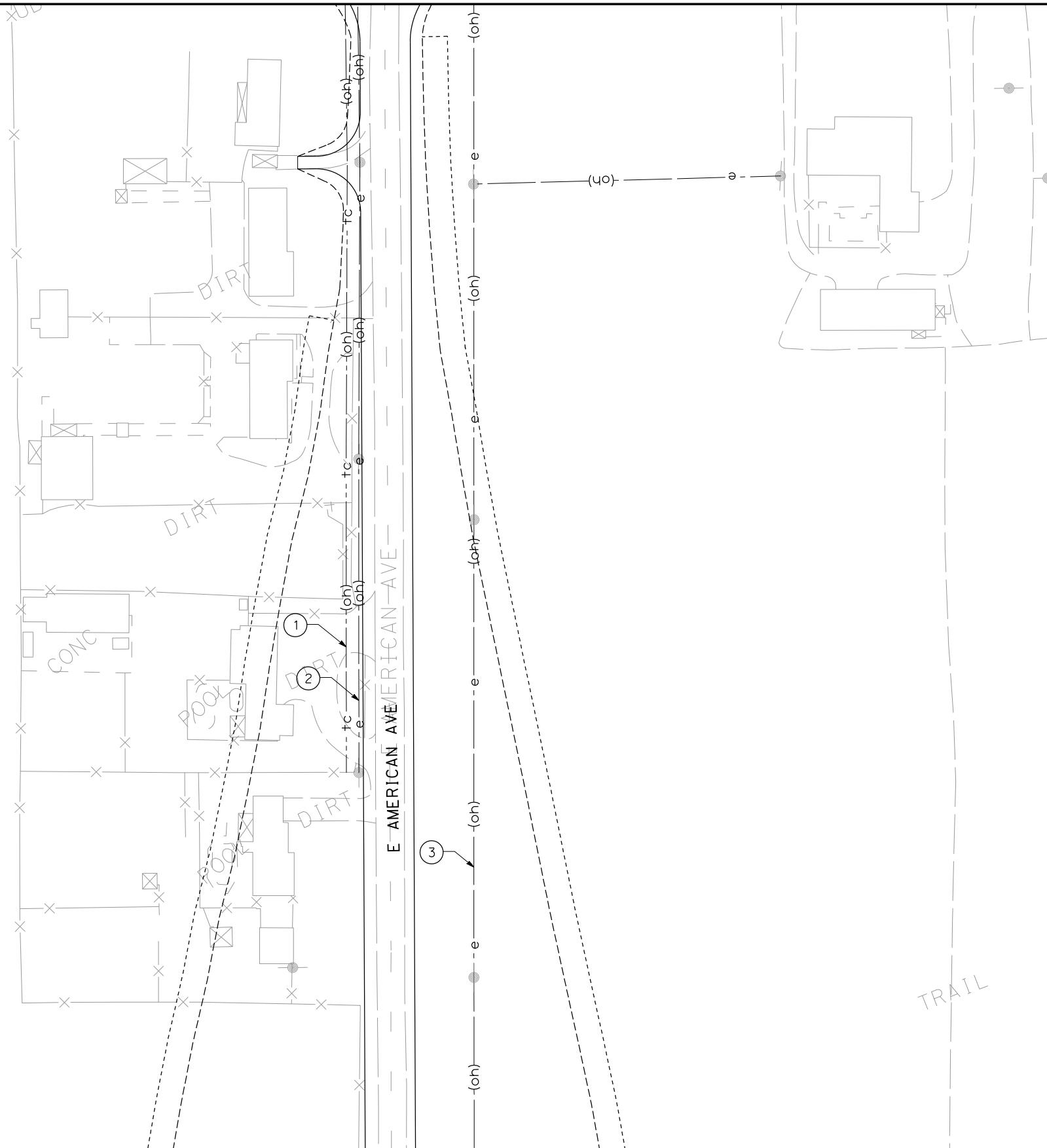
ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION	DESIGNED BY C. ALLEN DRAWN BY S. KHAN CHECKED BY M. POLISCHUK IN CHARGE J. LABANOWSKI DATE 06/06/12	PROPOSED PRELIMINARY DESIGN NOT FOR CONSTRUCTION	URS HMM ARUP CALIFORNIA HIGH-SPEED TRAIN	CALIFORNIA HIGH-SPEED RAIL AUTHORITY	CONTRACT NO. DRAWING NO. UT-C4086 SCALE AS SHOWN SHEET NO.

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
E CENTRAL AVE

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
(1)	OH TELECOM	NA	UNKNOWN	RELOCATE
(2)	OH POWER	UNKNOWN	PG&E	RELOCATE
(3)	OH POWER	UNKNOWN	PG&E	RELOCATE



MATCH LINE - (UT-4077)

50 0 50 100
1"=50' HOR
SCALE APPLICABLE FOR FULL SIZE ONLY

ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY
C. ALLEN
DRAWN BY
S. KHAN
CHECKED BY
M. POLISCHUK
IN CHARGE
J. LABANOWSKI
DATE
06/06/12

**PROPOSED
PRELIMINARY
DESIGN**
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
E AMERICAN AVE

CONTRACT NO.
DRAWING NO.
UT-C4087
SCALE
AS SHOWN
SHEET NO.

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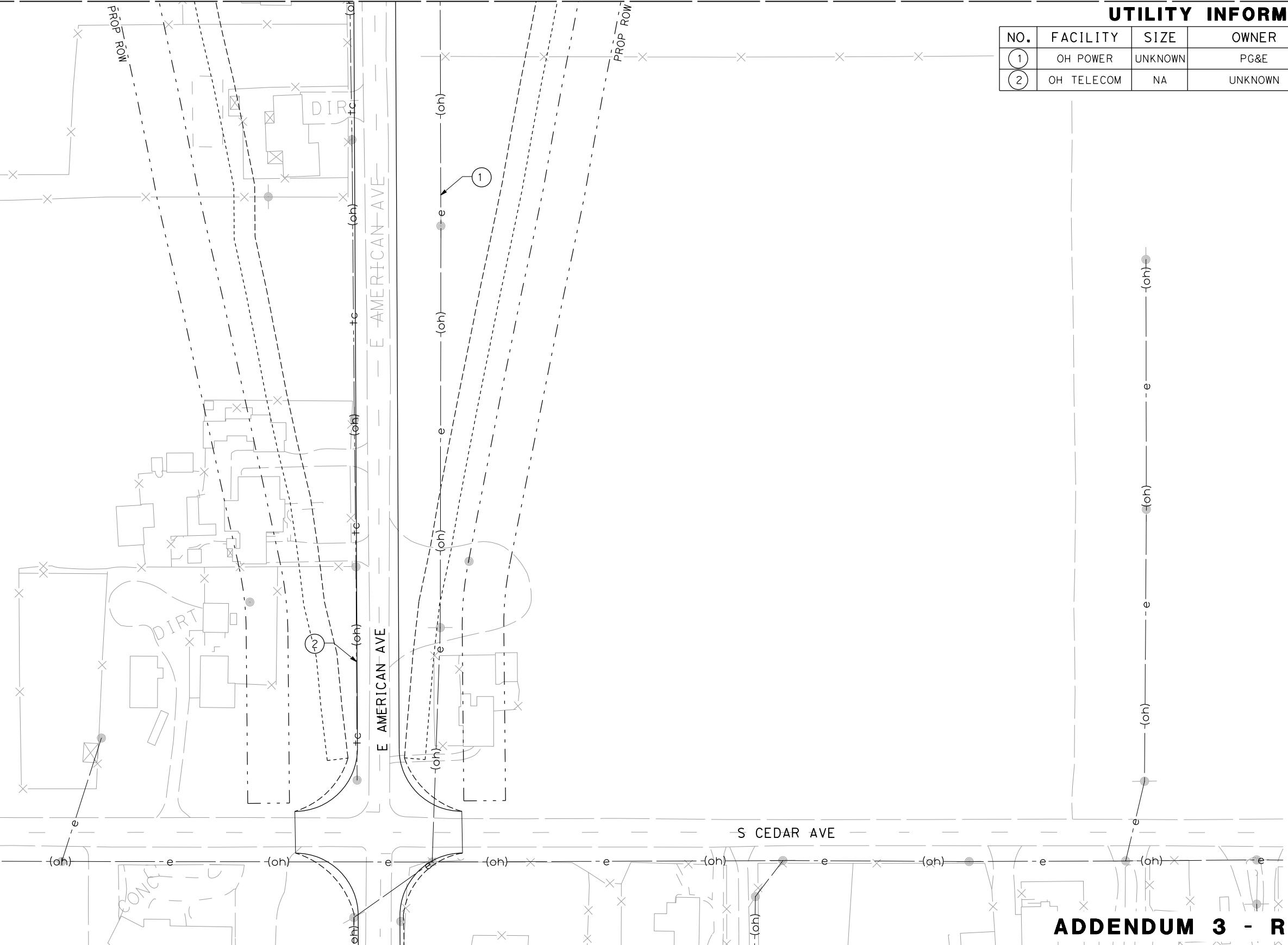
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MATCH LINE (UT-4077)

UTILITY INFORMATION

NO.	FACILITY	SIZE	OWNER	DISPOSITION
1	OH POWER	UNKNOWN	PG&E	RELOCATE
2	OH TELECOM	NA	UNKNOWN	RELOCATE



A horizontal scale diagram with a central vertical tick mark labeled '0'. Above the tick mark is a circle with a crosshair symbol. To the left of the '0' is the label '0' HOR. To the right of the '0' are numerical labels '50' and '100' at the ends of the scale bar.

ADDENDUM 3 - RFP HSR 11-16

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**

PACKAGE 1C
UTILITIES
COMPOSITE UTILITY PLAN
E AMERICAN AVE

DESIGNED C. AL
DRAWN BY S. KH
CHECKED M. PO
IN CHARGE J. LA
DATE 06

**PROPOSED
PRELIMINARY
DESIGN**

**NOT FOR
CONSTRUCTION**



CONTRACT NO.
DRAWING NO.
UT-C4088
SCALE
AS SHOWN
SHEET NO.

PACKAGE 1C**ADDENDUM 3 - RFP HSR 11-16**

REV	DATE	BY	CHK	APP	DESCRIPTION

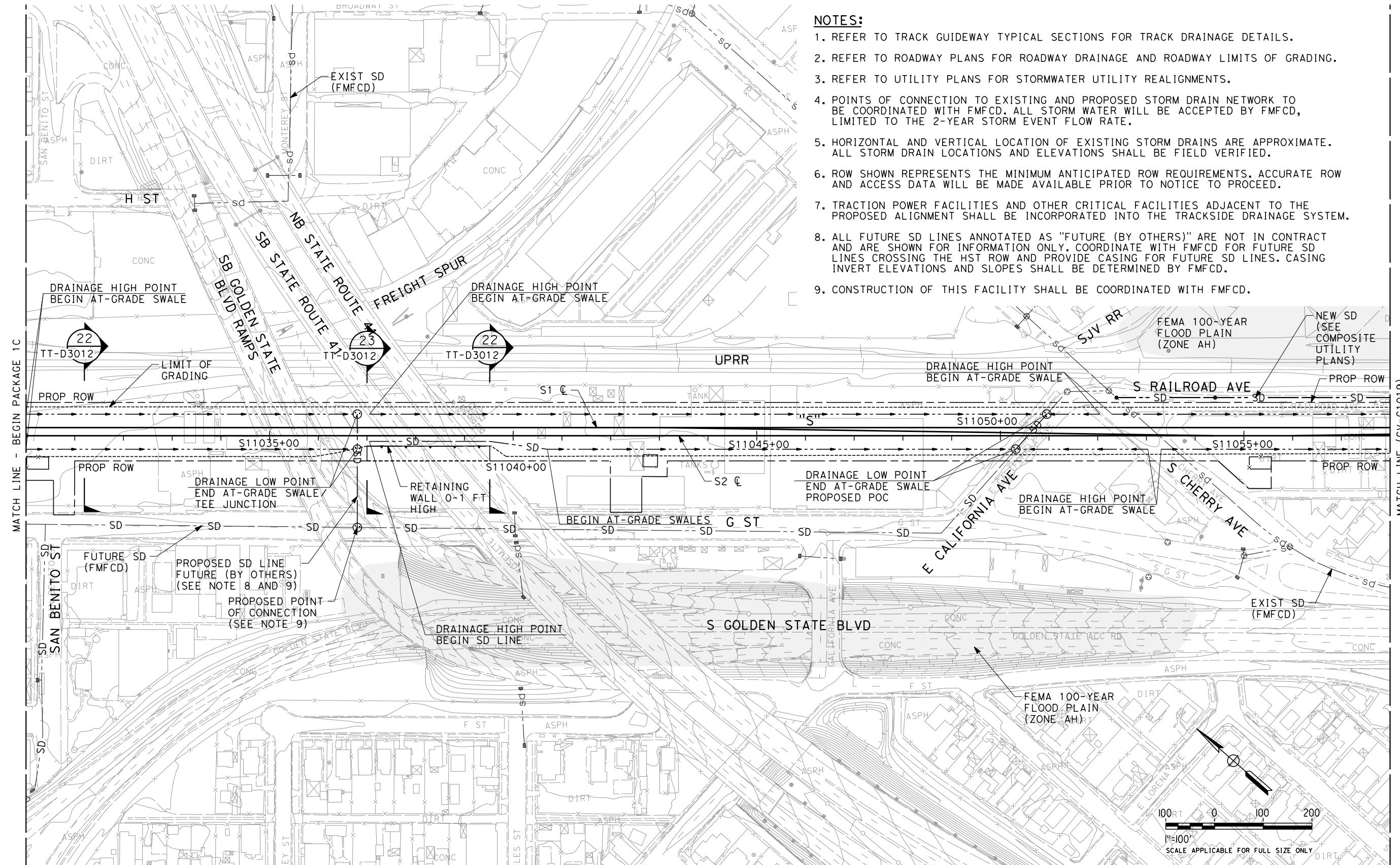
DESIGNED BY
K. SEYMOUR
DRAWN BY
P. TONKIN
CHECKED BY
D. HUNT
IN CHARGE
R. COFFIN
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
**NOT FOR
CONSTRUCTION**



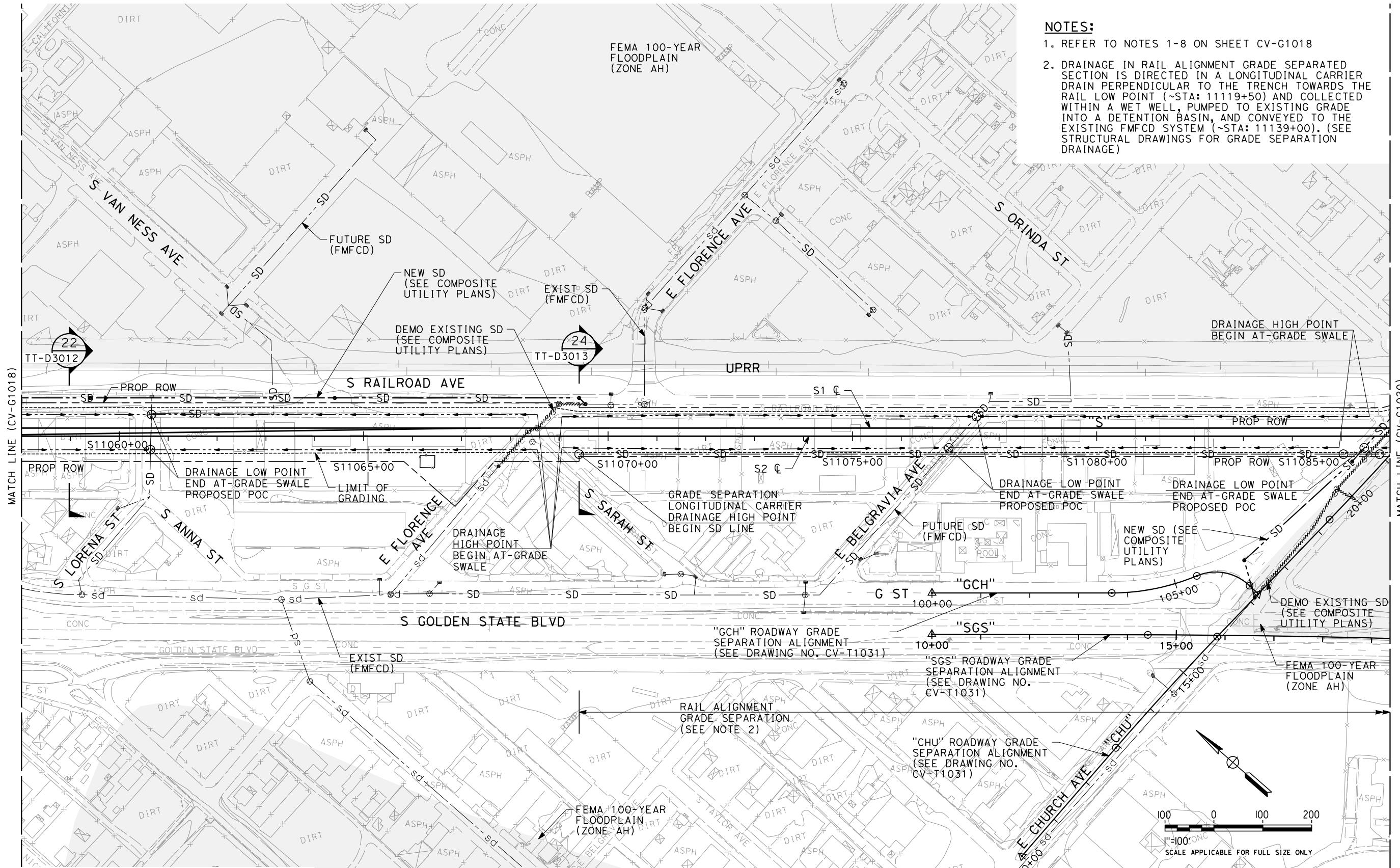
**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
GRADING AND DRAINAGE
KEY MAP

CONTRACT NO.	
DRAWING NO.	CV-B0021
SCALE	AS SHOWN
SHEET NO.	



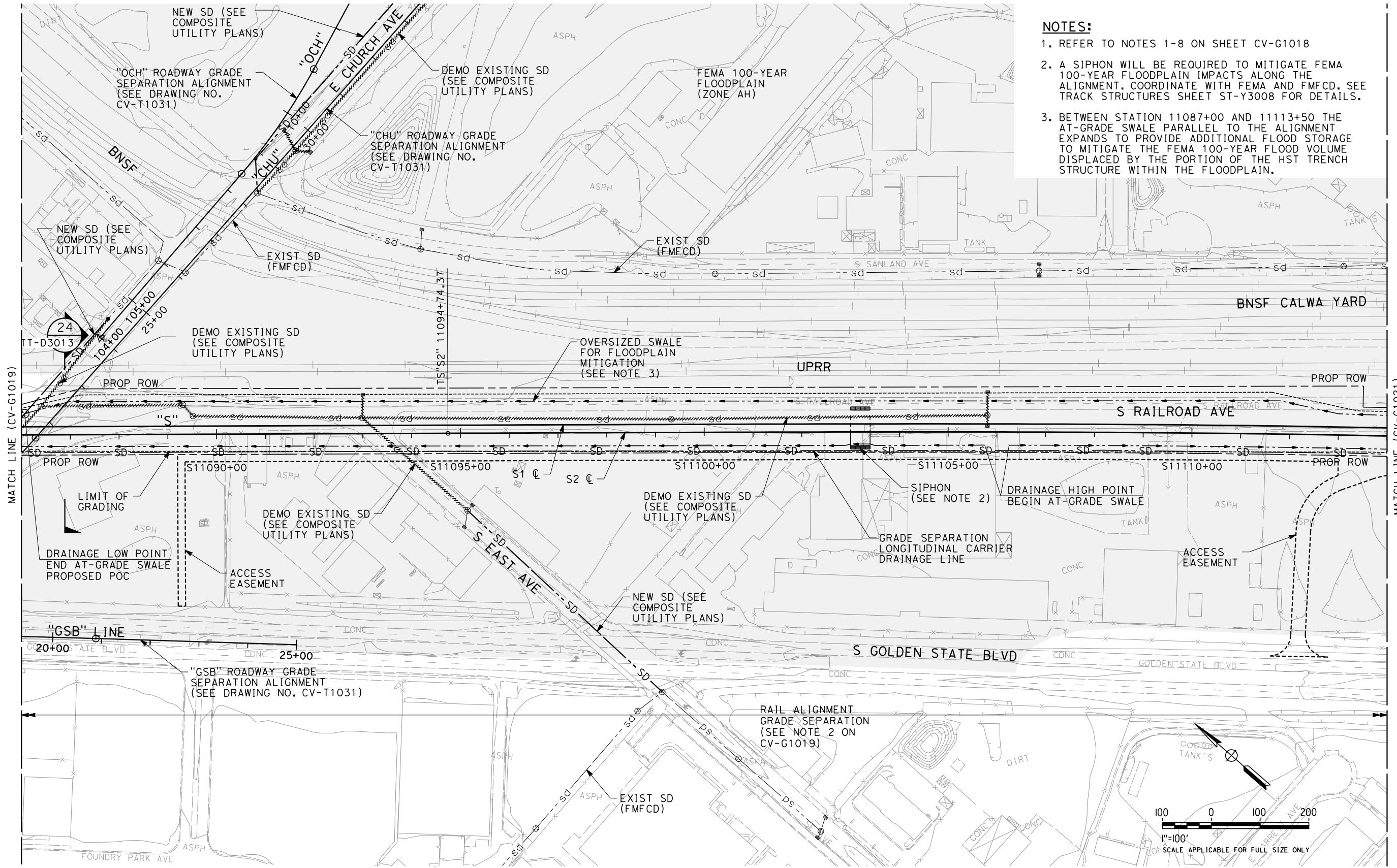
ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY G. SCHLERETH	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY E. SUDHAUSEN	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. CV-G1018
CHECKED BY S. BURGES		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN
IN CHARGE R. COFFIN			SHEET NO.
DATE 06/06/12			
REV	DATE	BY	CHK APP
		DESCRIPTION	



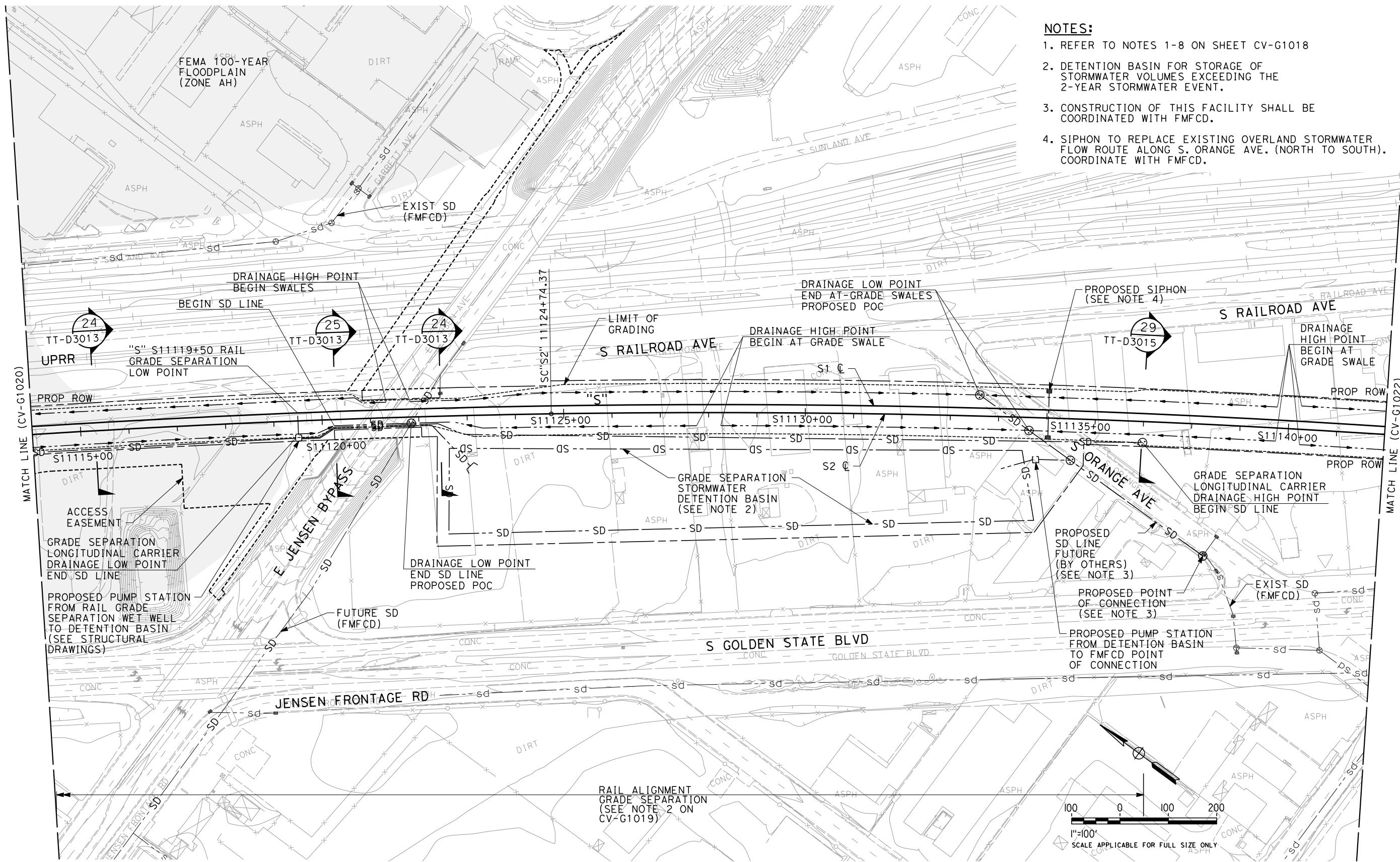
ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY G. SCHLERETH	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY E. SUDHAUSEN	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. CV-G1019
CHECKED BY S. BURGES		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN
IN CHARGE R. COFFIN			SHEET NO.
DATE 06/06/12			
REV	DATE	BY	CHK APP
DESCRIPTION			



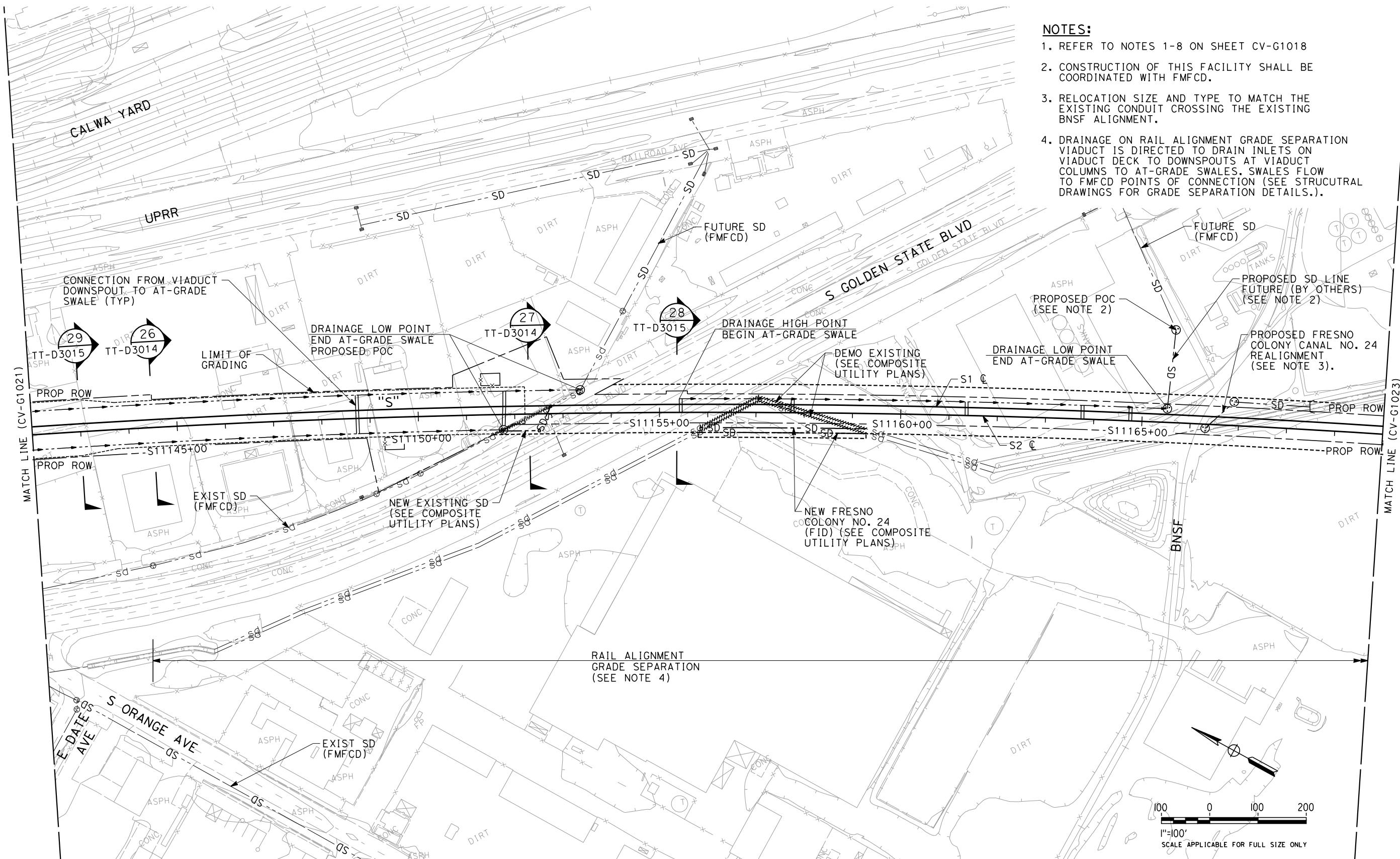
ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY G. SCHLERETH	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.
DRAWN BY E. SUDHAUSEN	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. CV-G1020
CHECKED BY S. BURGES		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN
IN CHARGE R. COFFIN			SHEET NO.
DATE 06/06/12			
REV	DATE	BY	CHK APP
DESCRIPTION			



ADDENDUM 3 - RFP HSR 11-1

The image shows a horizontal banner for the California High-Speed Train Project. On the left, there is a vertical stack of five rectangular boxes containing text: 'DESIGNED BY G. SCHLERETH', 'DRAWN BY E. SUDHAUSEN', 'CHECKED BY S. BURGES', 'IN CHARGE R. COFFIN', and 'DATE 06/06/12'. To the right of these boxes is a vertical column of text: 'PROPOSED PRELIMINARY DESIGN' and 'NOT FOR CONSTRUCTION'. Next to this column is a logo for 'URS | HMM | ARUP' featuring a stylized train and the text 'CALIFORNIA HIGH-SPEED TRAIN'. To the right of the logo is the official seal of the 'CALIFORNIA HIGH-SPEED RAIL AUTHORITY', which includes a circular emblem with a train and the state of California, with the words 'CALIFORNIA' and 'HIGH-SPEED RAIL AUTHORITY' below it. To the far right, the text 'CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C UTILITIES GRADING AND DRAINAGE PLAN STA. 11114+00 TO STA. 11142+00' is displayed in large capital letters. Above this main title, 'CONTRACT NO.', 'DRAWING NO.', 'SCALE', and 'SHEET NO.' are listed with their respective values: 'CV-G1021', 'AS SHOWN', and '001'. The entire banner is set against a light blue background.



REV	DATE	BY	CHK	APP	DESCRIPTION
					06/06/12

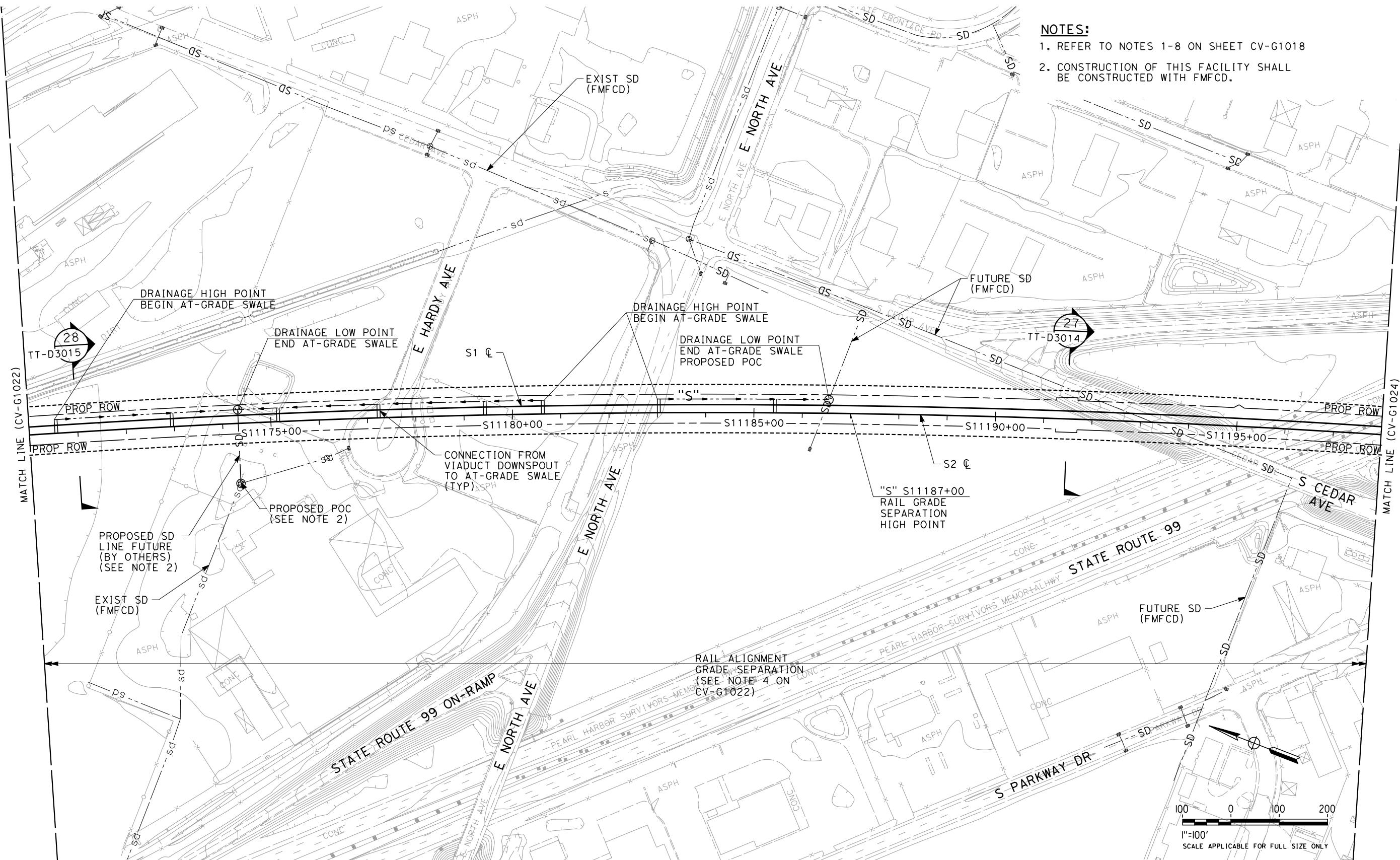
DESIGNED BY
G. SCHLERETH
DRAWN BY
E. SUDHAUSEN
CHECKED BY
S. BURGES
IN CHARGE
R. COFFIN
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
**NOT FOR
CONSTRUCTION**



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
GRADING AND DRAINAGE PLAN
STA. 11142+00 TO STA. 11170+00

CONTRACT NO.
DRAWING NO.
CV-G1022
SCALE
AS SHOWN
SHEET NO.



ADDENDUM 3 - RFP HSR 11-16

REV	DATE	BY	CHK	APP	DESCRIPTION
	06/06/12				

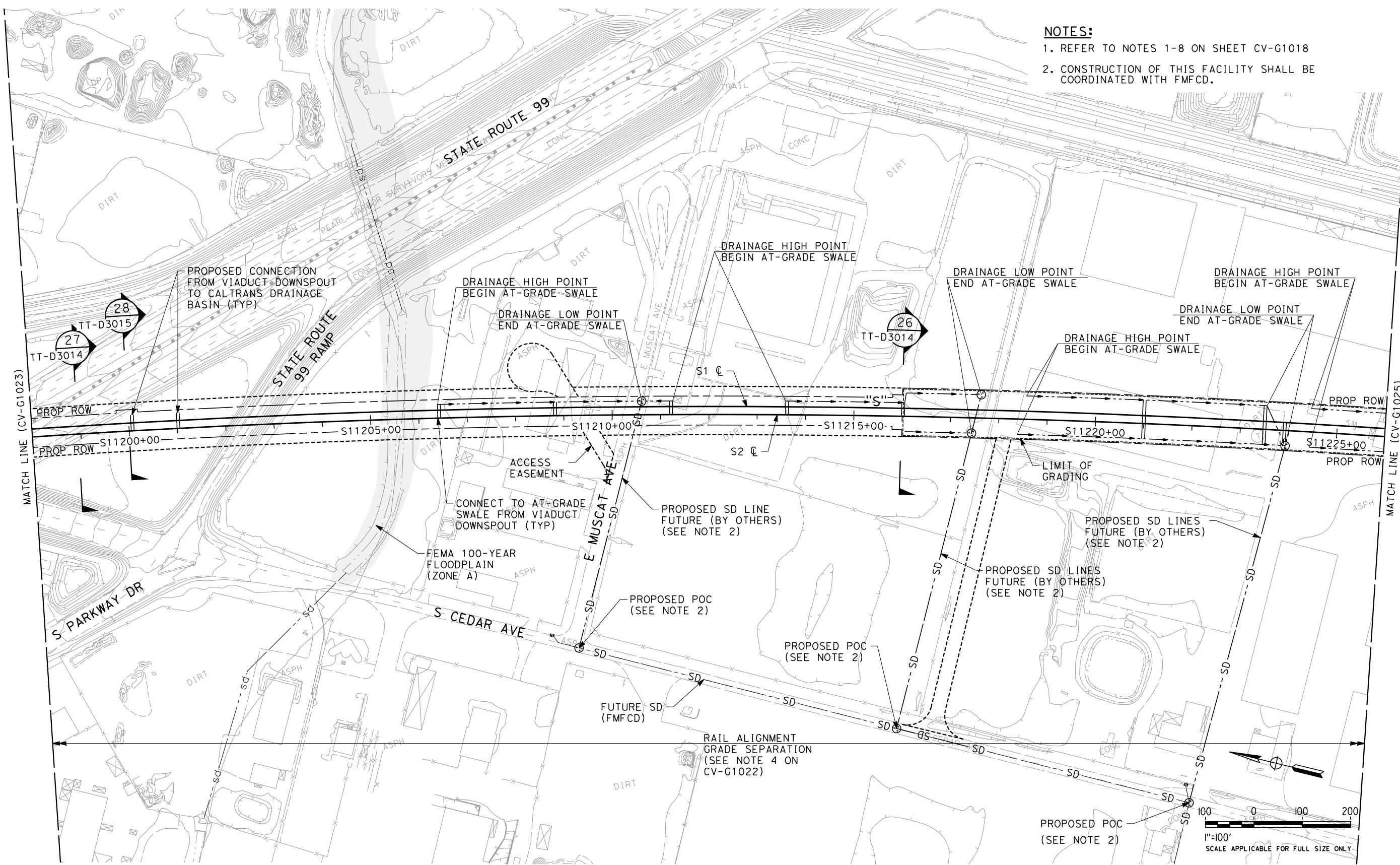
DESIGNED BY
G. SCHLERETH
DRAWN BY
E. SUDHAUSEN
CHECKED BY
S. BURGES
IN CHARGE
R. COFFIN
DATE
06/06/12

PROPOSED
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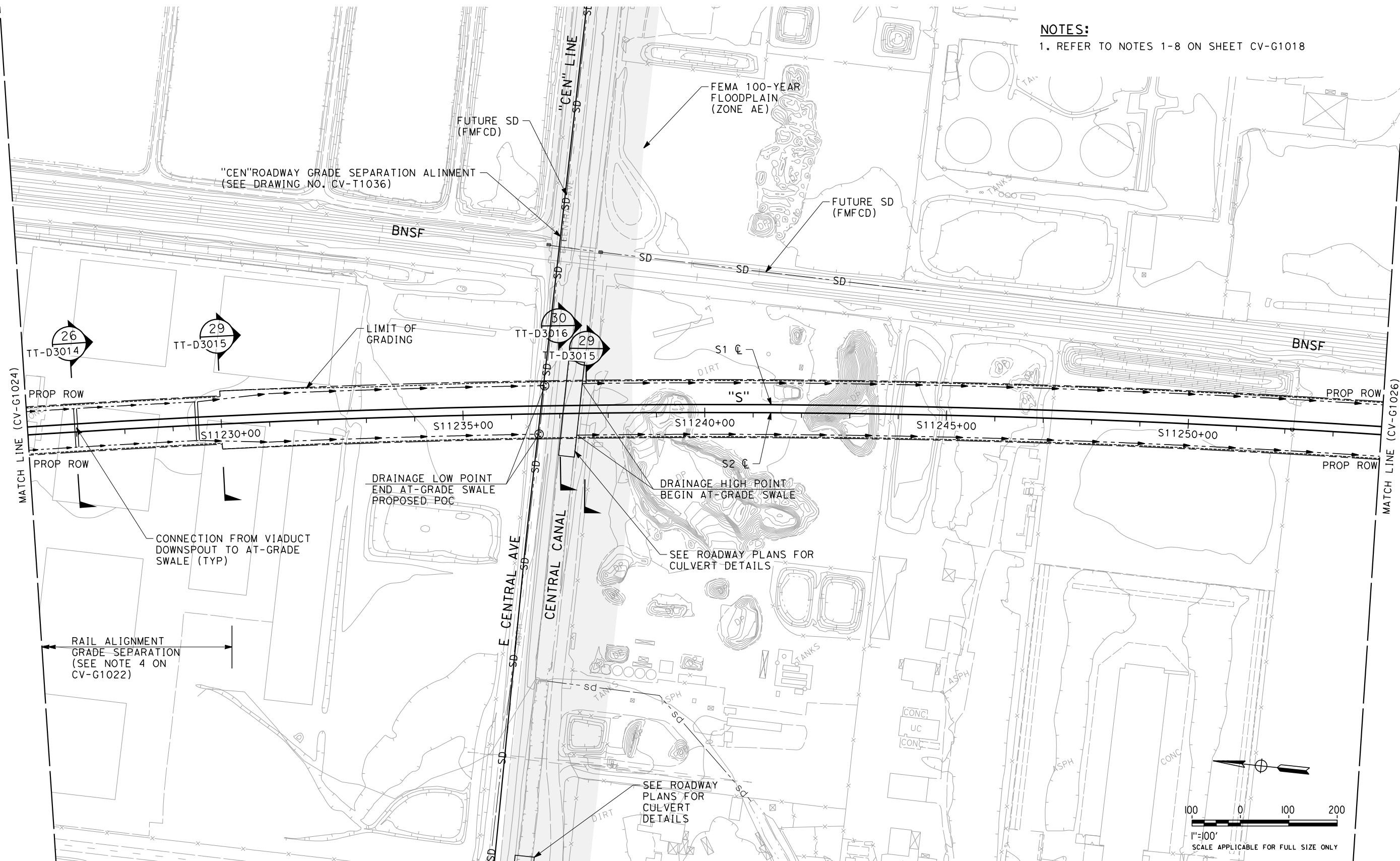
CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION
PACKAGE 1C
UTILITIES
GRADING AND DRAINAGE PLAN
STA. 11170+00 TO STA. 11198+00

CONTRACT NO.	
DRAWING NO.	CV-G1023
SCALE	AS SHOWN
SHEET NO.	



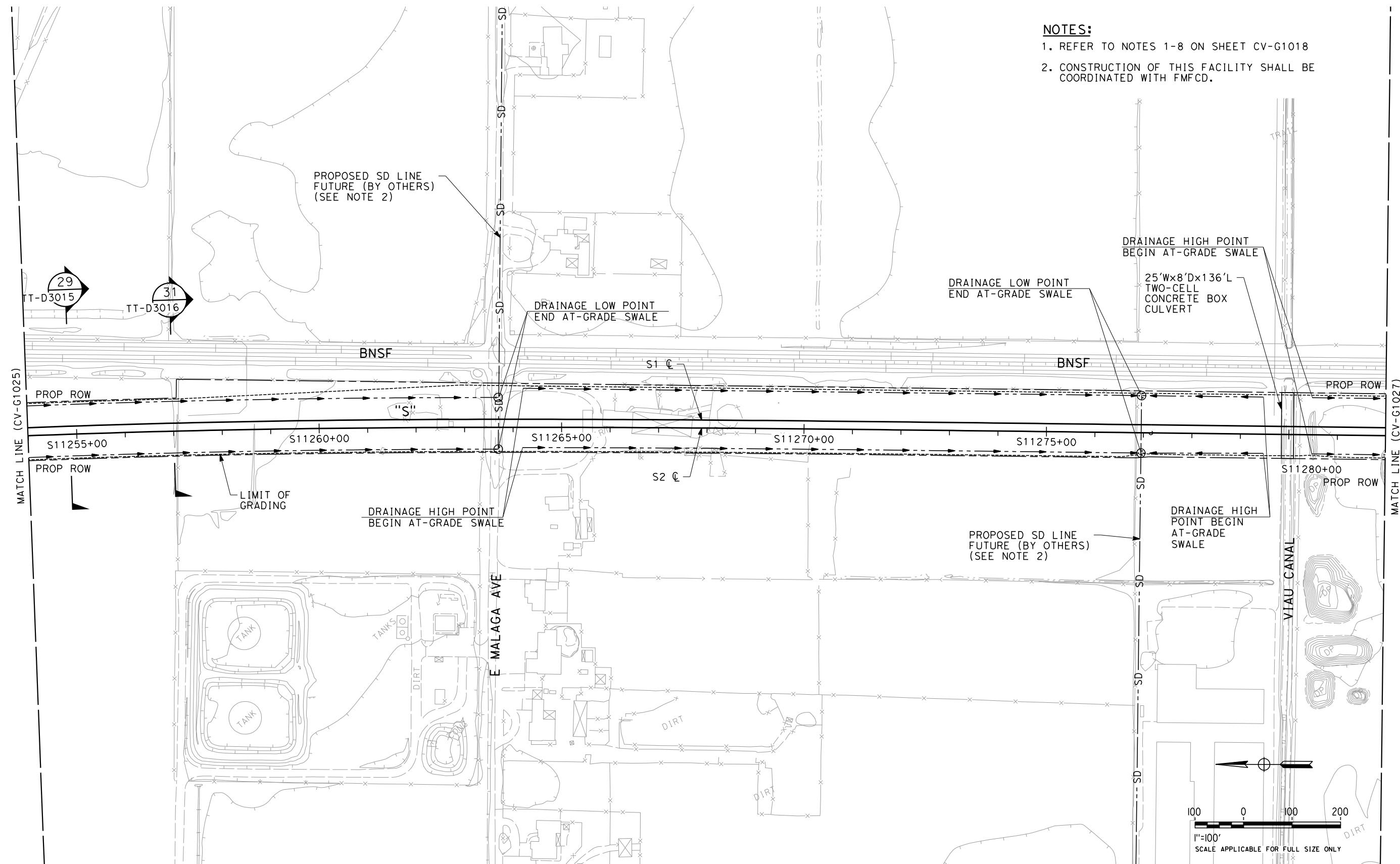
ADDENDUM 3 - RFP HSR 11-1

						DESIGNED BY G. SCHLERETH	PROPOSED PRELIMINARY DESIGN			CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION PACKAGE 1C UTILITIES GRADING AND DRAINAGE PLAN STA. 11198+00 TO STA. 11226+00	CONTRACT NO. DRAWING NO. CV-G1024 SCALE AS SHOWN SHEET NO.
						DRAWN BY E. SUDHAUSEN					
						CHECKED BY S. BURGES					
						IN CHARGE R. COFFIN	NOT FOR CONSTRUCTION				
REV	DATE	BY	CHK	APP	DESCRIPTION	DATE 06/06/12					



ADDENDUM 3 - RFP HSR 11-16

DESIGNED BY G. SCHLERETH	PROPOSED PRELIMINARY DESIGN	CALIFORNIA HIGH-SPEED TRAIN PROJECT SIERRA SUBDIVISION	CONTRACT NO.		
DRAWN BY E. SUDHAUSEN	NOT FOR CONSTRUCTION	URS HMM ARUP	DRAWING NO. CV-G1025		
CHECKED BY S. BURGES		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	SCALE AS SHOWN		
IN CHARGE R. COFFIN			SHEET NO.		
DATE 06/06/12					
REV	DATE	BY	CHK APP	DESCRIPTION	CONTRACT NO.



REV	DATE	BY	CHK	APP	DESCRIPTION
	06/06/12				

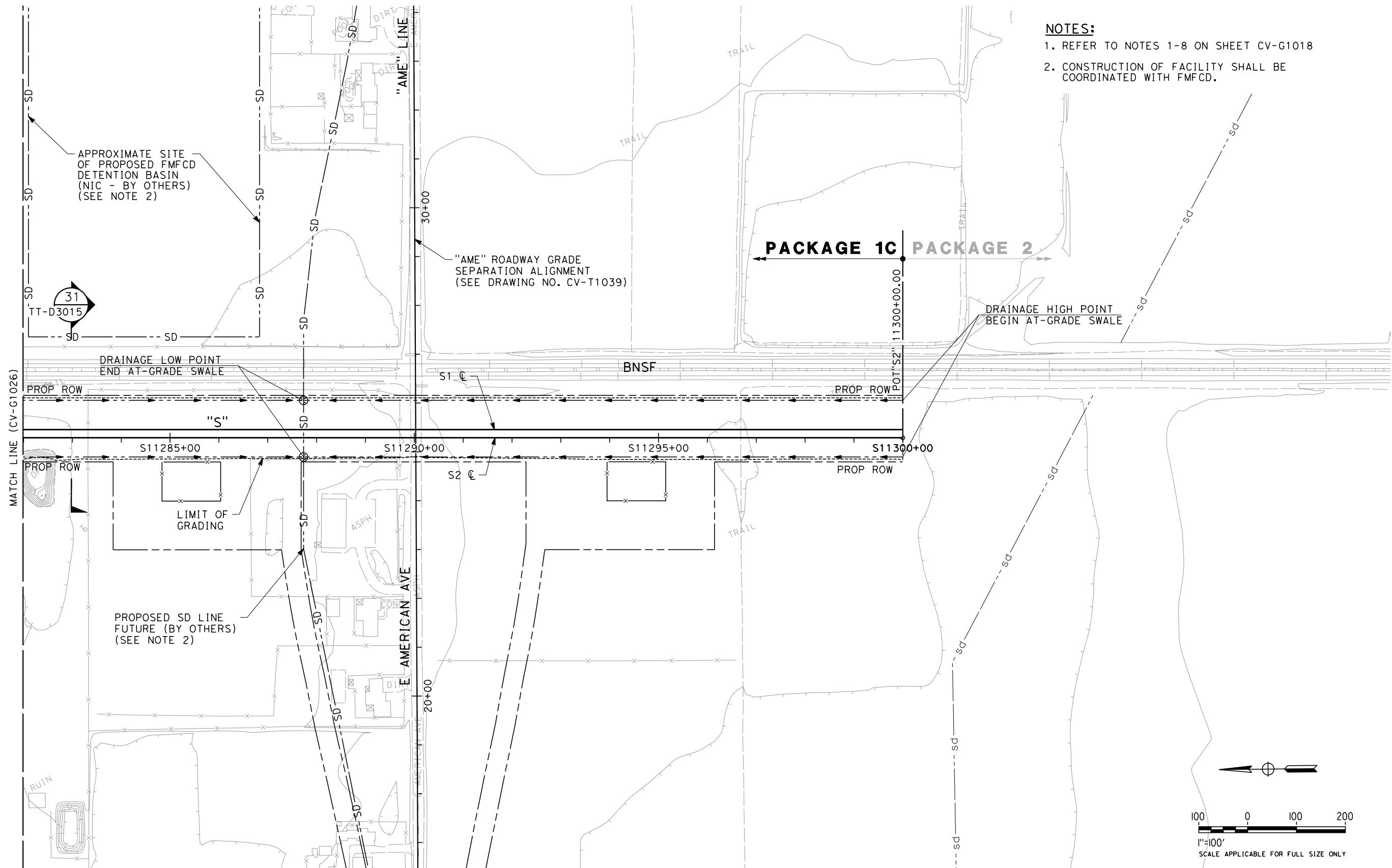
DESIGNED BY
G. SCHLERETH
DRAWN BY
E. SUDHAUSEN
CHECKED BY
S. BURGES
IN CHARGE
R. COFFIN
DATE
06/06/12

PROPOSED
PRELIMINARY
DESIGN
NOT FOR
CONSTRUCTION



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
GRADING AND DRAINAGE PLAN
STA. 11254+00 TO STA. 11282+00

CONTRACT NO.
DRAWING NO. CV-G1026
SCALE AS SHOWN
SHEET NO.



REV	DATE	BY	CHK	APP

DESIGNED BY G. SCHLERETH		PROPOSED PRELIMINARY DESIGN		CALIFORNIA HIGH-SPEED RAIL AUTHORITY	
DRAWN BY E. SUDHAUSEN					
CHECKED BY S. BURGES					
IN CHARGE R. COFFIN					
DATE 06/06/12					

NOT FOR
CONSTRUCTION



**CALIFORNIA HIGH-SPEED TRAIN PROJECT
SIERRA SUBDIVISION**
PACKAGE 1C
UTILITIES
GRADING AND DRAINAGE PLAN
STA. 11282+00 TO STA. 11300+00

CONTRACT NO.	
DRAWING NO.	CV-G1027
SCALE	AS SHOWN
SHEET NO.	